Title: IMAGE FORMING SYSTEM
Inventor(s): Yoji MATSUDA
Appl. No.: 09/761,777

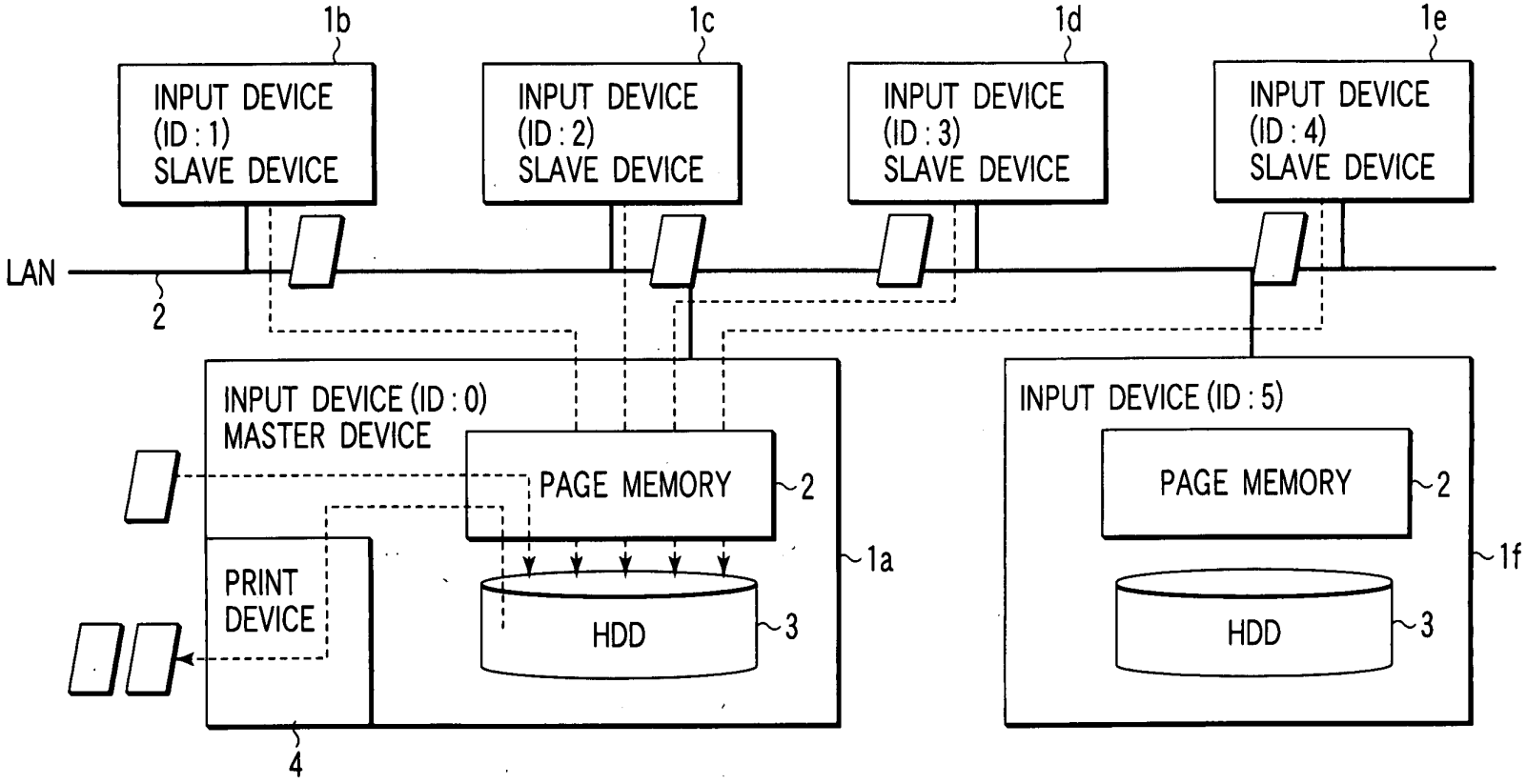

FIG. 1

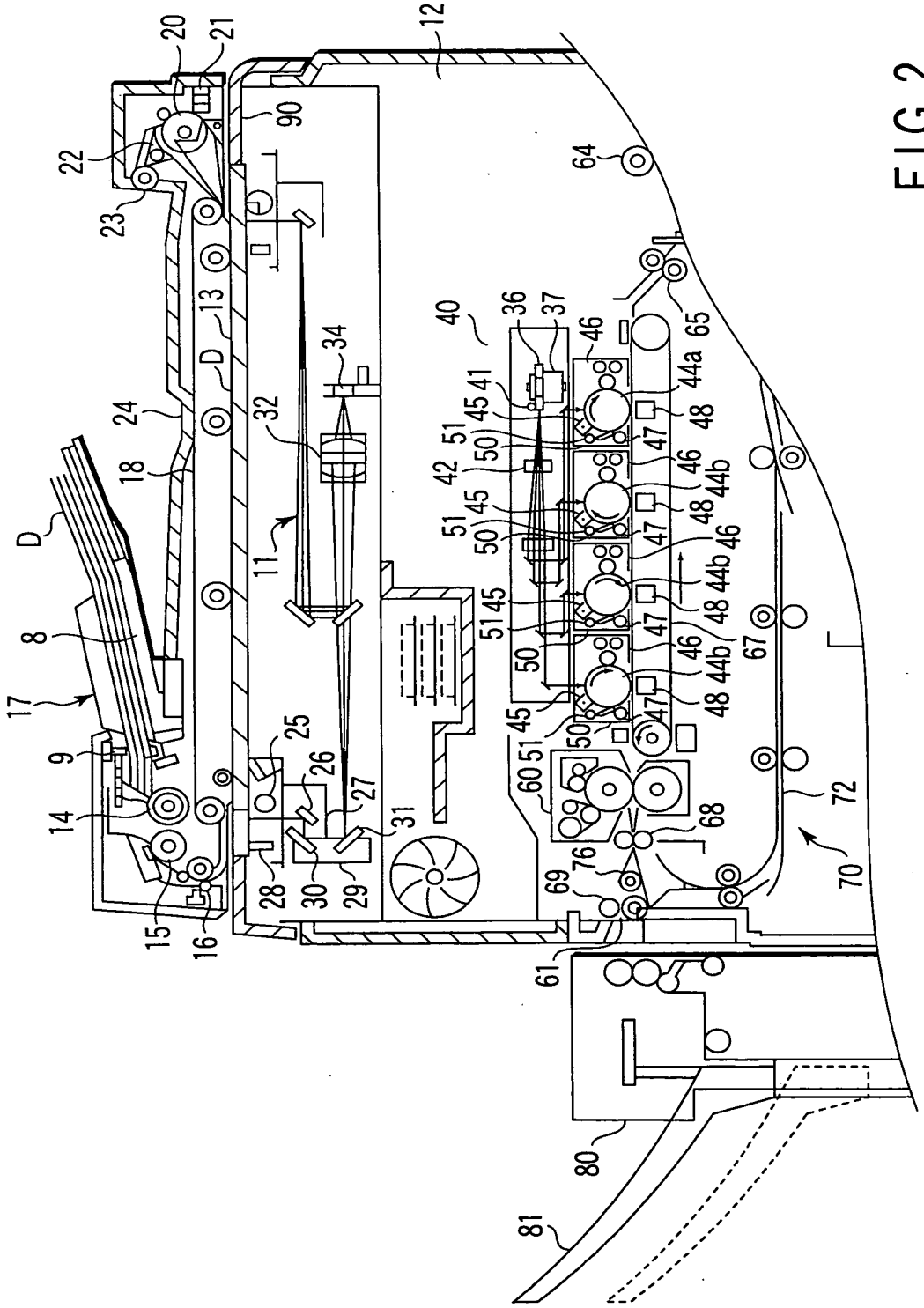
12
20
21
22
23
90
64
13
D
34
40
36
37
46
65
44a
24
32
41
45
51
48
47
18
42
50
44b
11
D
8
17
9
14
25
26
27
31
28
30
29
15
16
60
68
72
67
69
76
70
61
80
81

FIG. 2

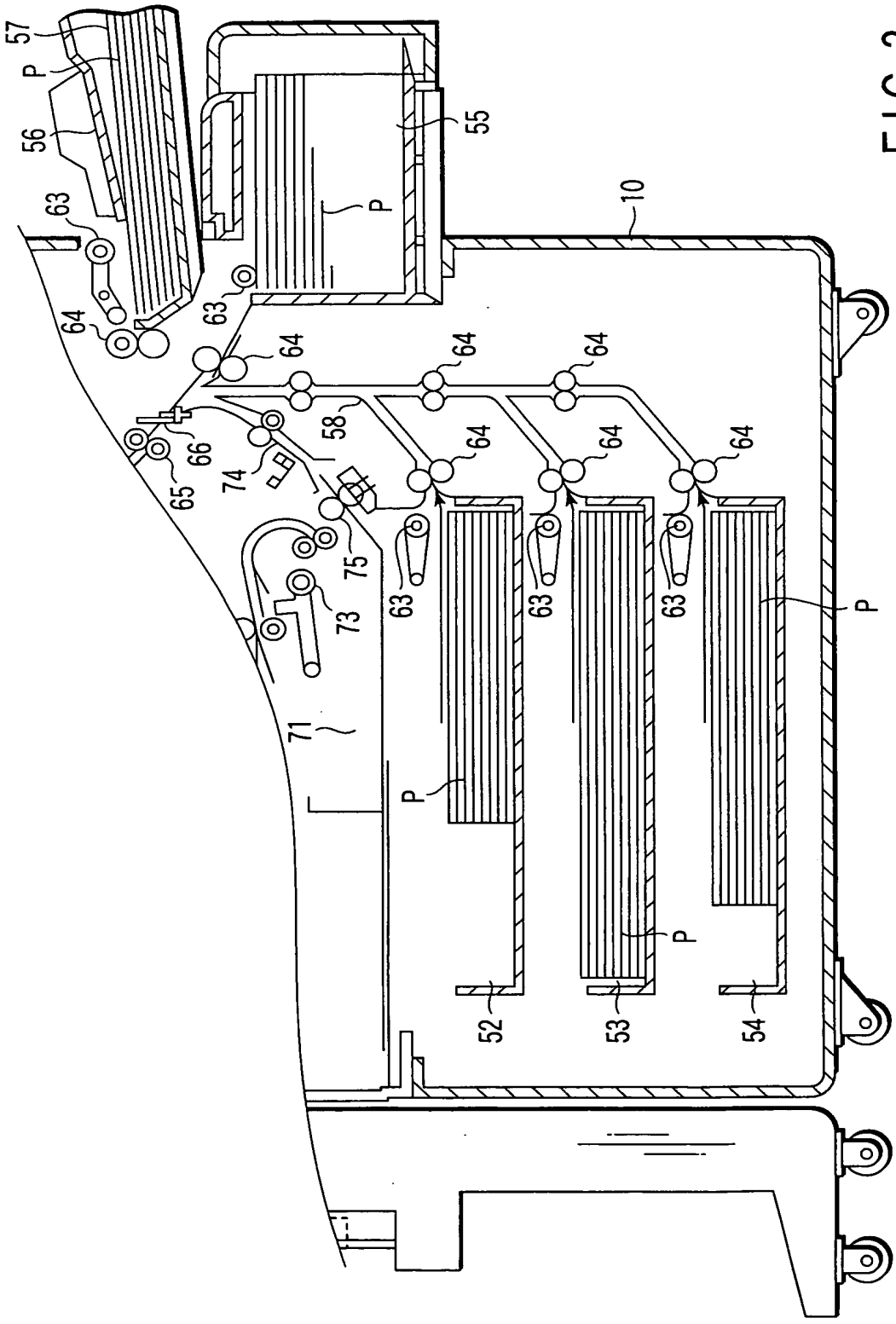
57
P
56
63
64
55
P
10
63
64
64
64
58
64
64
64
66
65
74
75
63
63
63
P
73
71
P
P
52
53
54

FIG. 3

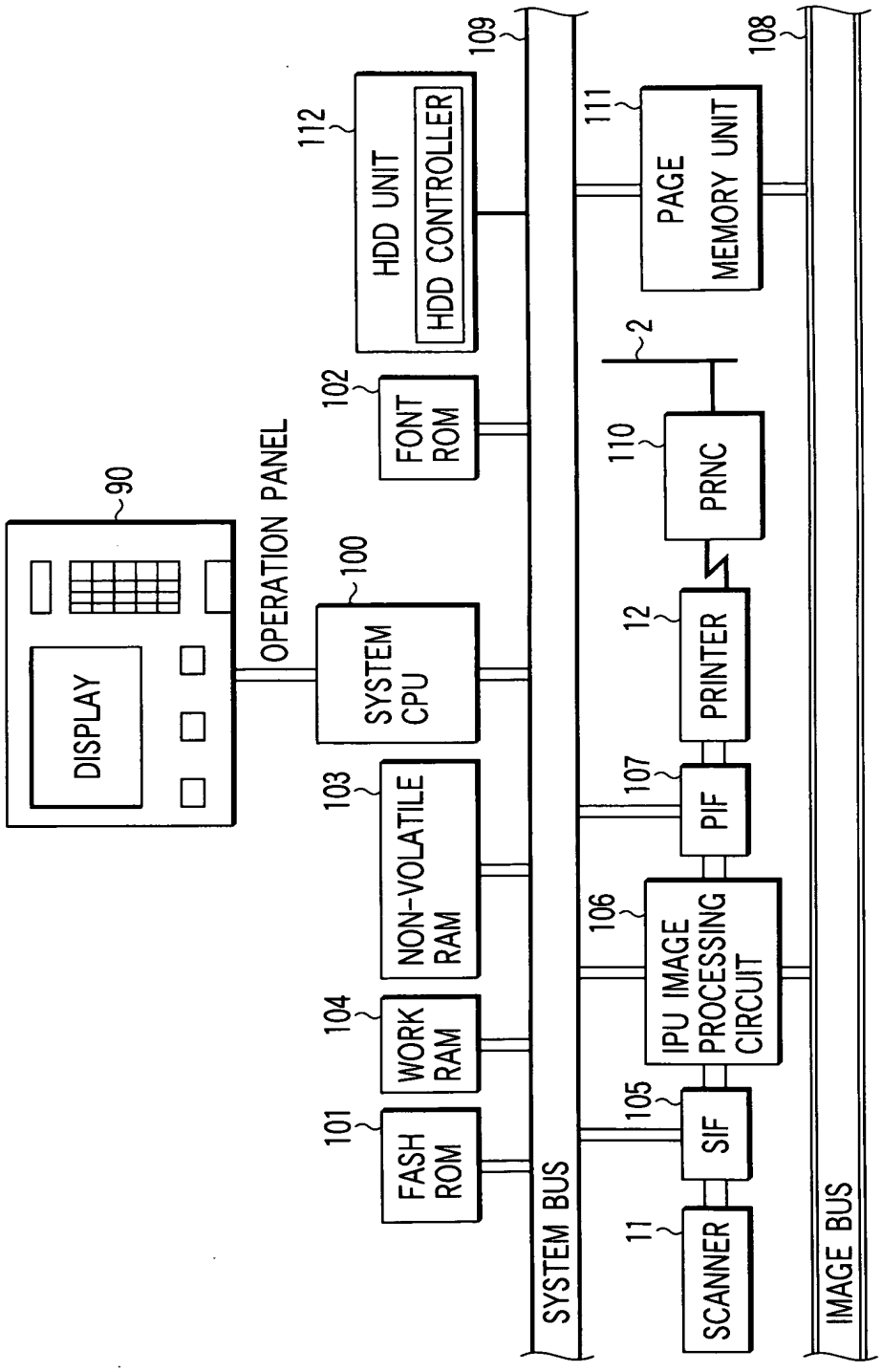
DISPLAY
90
OPERATION PANEL
SYSTEM CPU
100
FASH ROM
101
FONT ROM
102
NON-VOLATILE RAM
103
WORK RAM
104
HDD UNIT
HDD CONTROLLER
112
SCANNER
11
SIF
105
IPU IMAGE PROCESSING CIRCUIT
106
PIF
107
PRINTER
12
PRNC
110
2
PAGE MEMORY UNIT
111
SYSTEM BUS
109
IMAGE BUS
108

FIG. 4

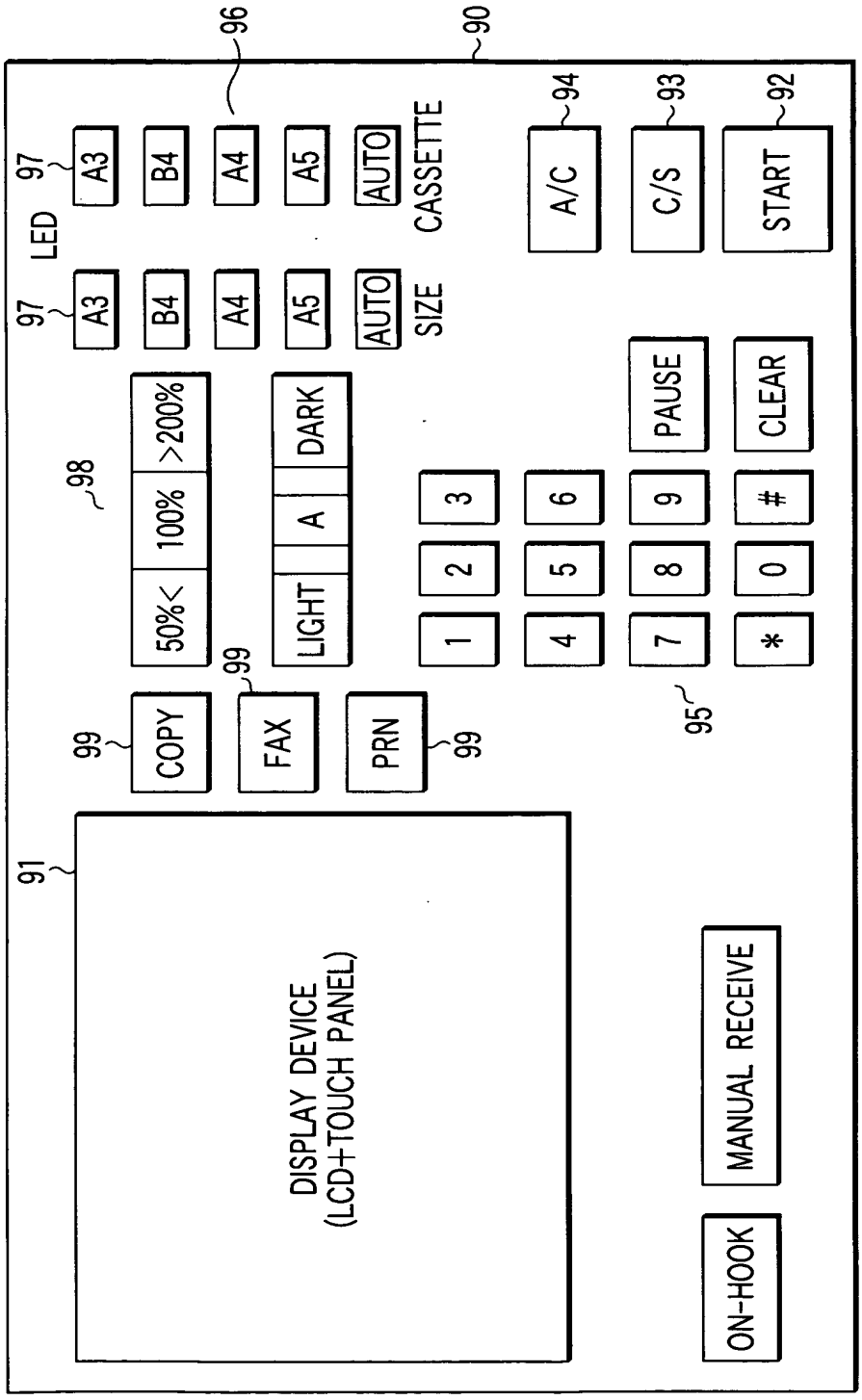
90
96
97
LED
A3
B4
A4
A5
AUTO
CASSETTE
SIZE
94
A/C
93
C/S
92
START
98
50%<
100%
>200%
LIGHT
A
DARK
1
2
3
4
5
6
7
8
9
0
*
#
PAUSE
CLEAR
95
99
COPY
FAX
PRN
91
DISPLAY DEVICE
(LCD+TOUCH PANEL)
ON-HOOK
MANUAL RECEIVE

FIG. 5

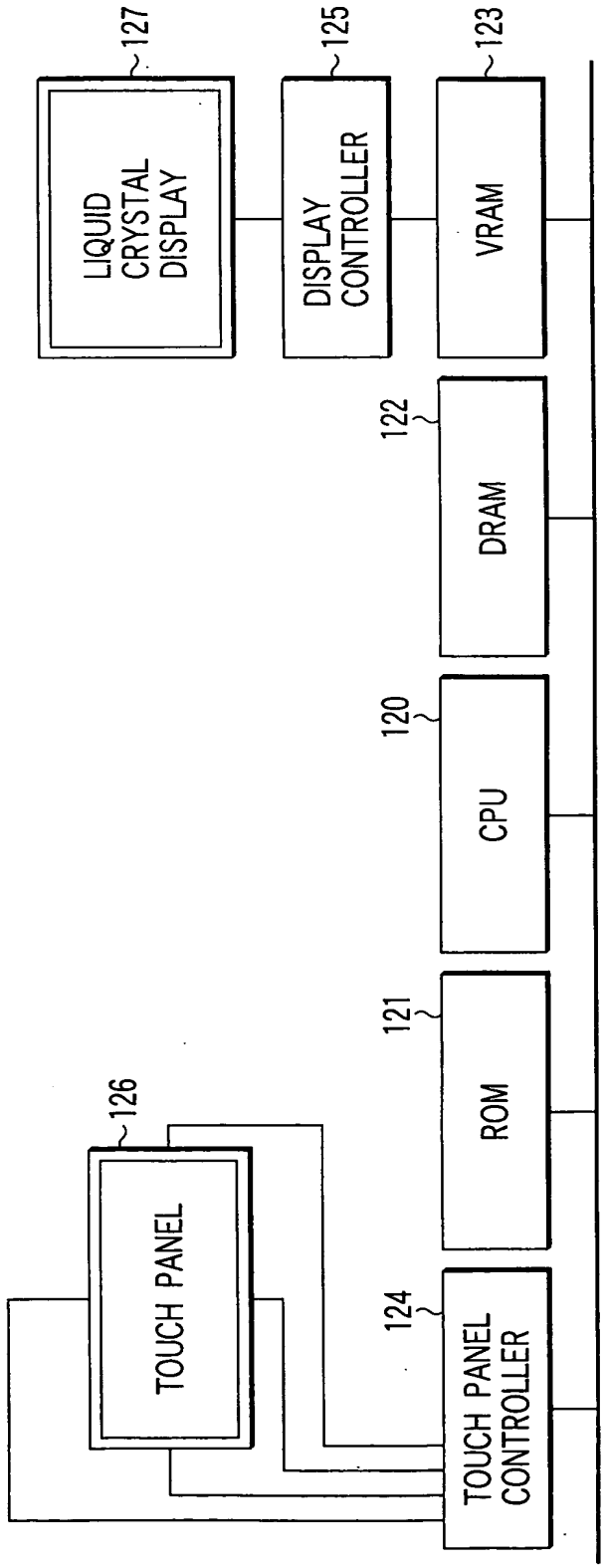
127
LIQUID CRYSTAL DISPLAY
125
DISPLAY CONTROLLER
123
VRAM
122
DRAM
120
CPU
121
ROM
126
TOUCH PANEL
124
TOUCH PANEL CONTROLLER

FIG. 6

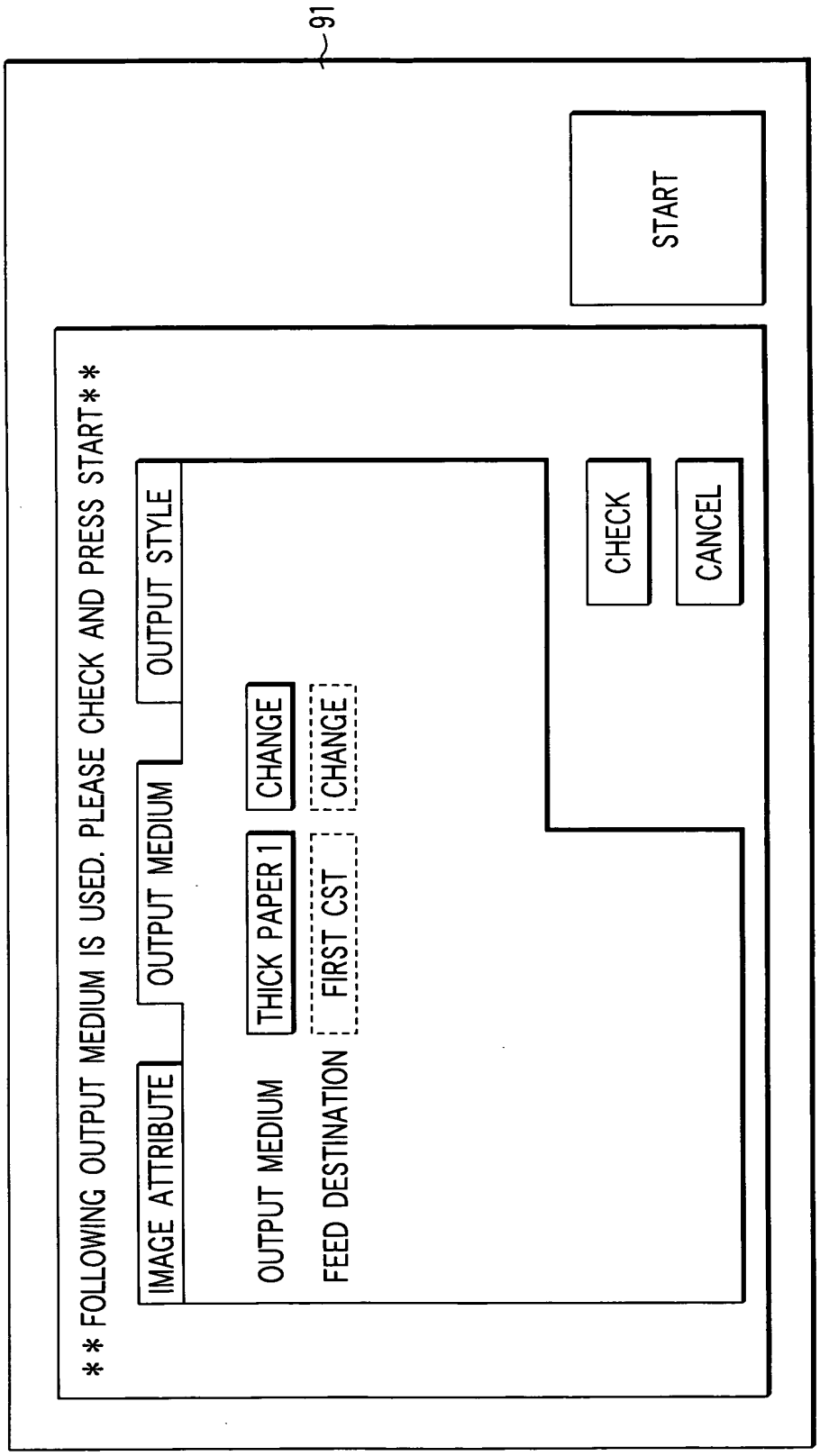
91
** FOLLOWING OUTPUT MEDIUM IS USED. PLEASE CHECK AND PRESS START **
IMAGE ATTRIBUTE
OUTPUT MEDIUM
OUTPUT STYLE
OUTPUT MEDIUM
THICK PAPER 1
CHANGE
FEED DESTINATION
FIRST CST
CHANGE
CHECK
CANCEL
START

FIG. 7

09761777 .070201

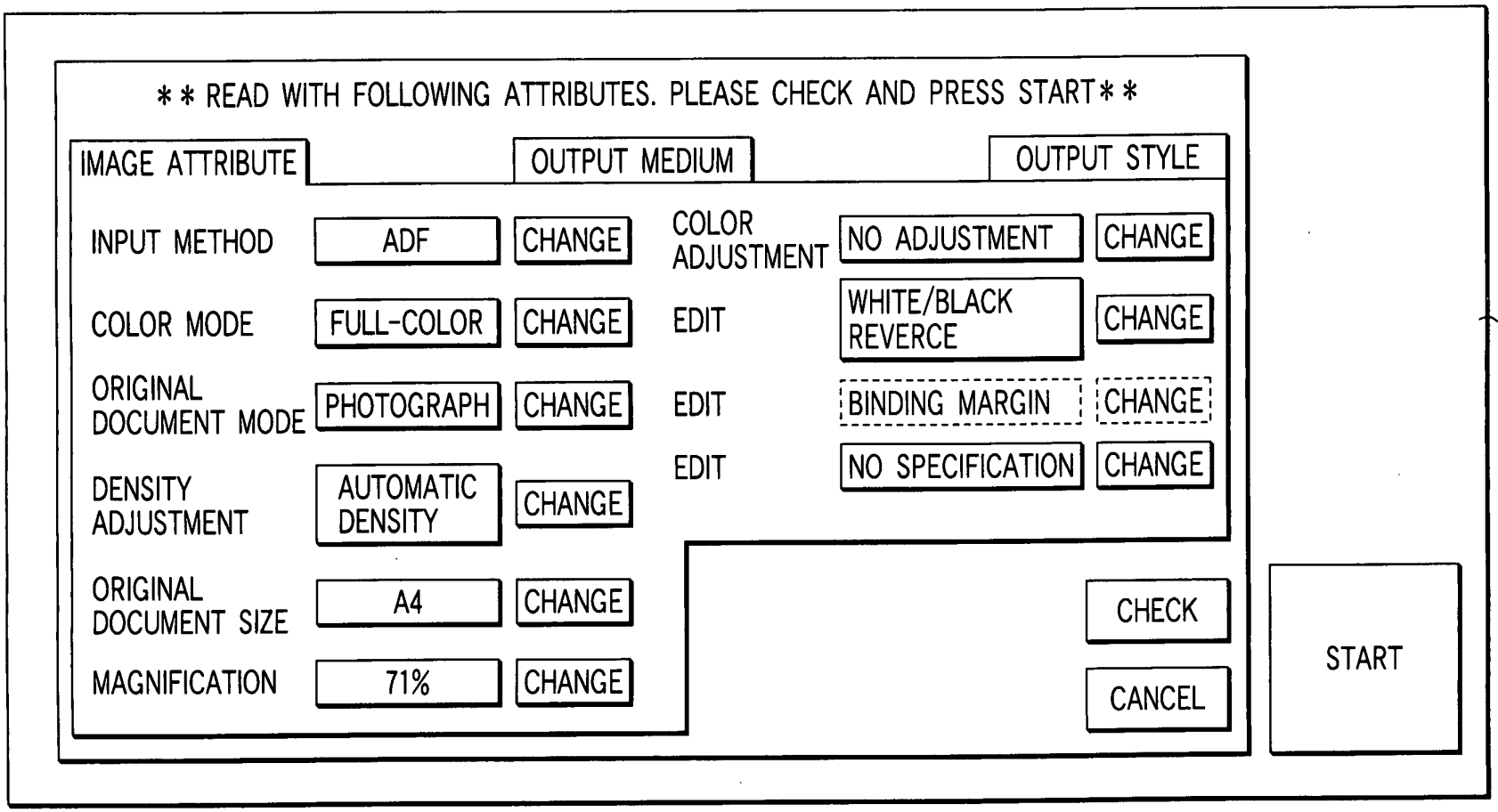

FIG. 8

Title: IMAGE FORMING SYSTEM
Inventor(s): Yoji MATSUDA
Appl. No.: 09/761,777

09761777 .070201

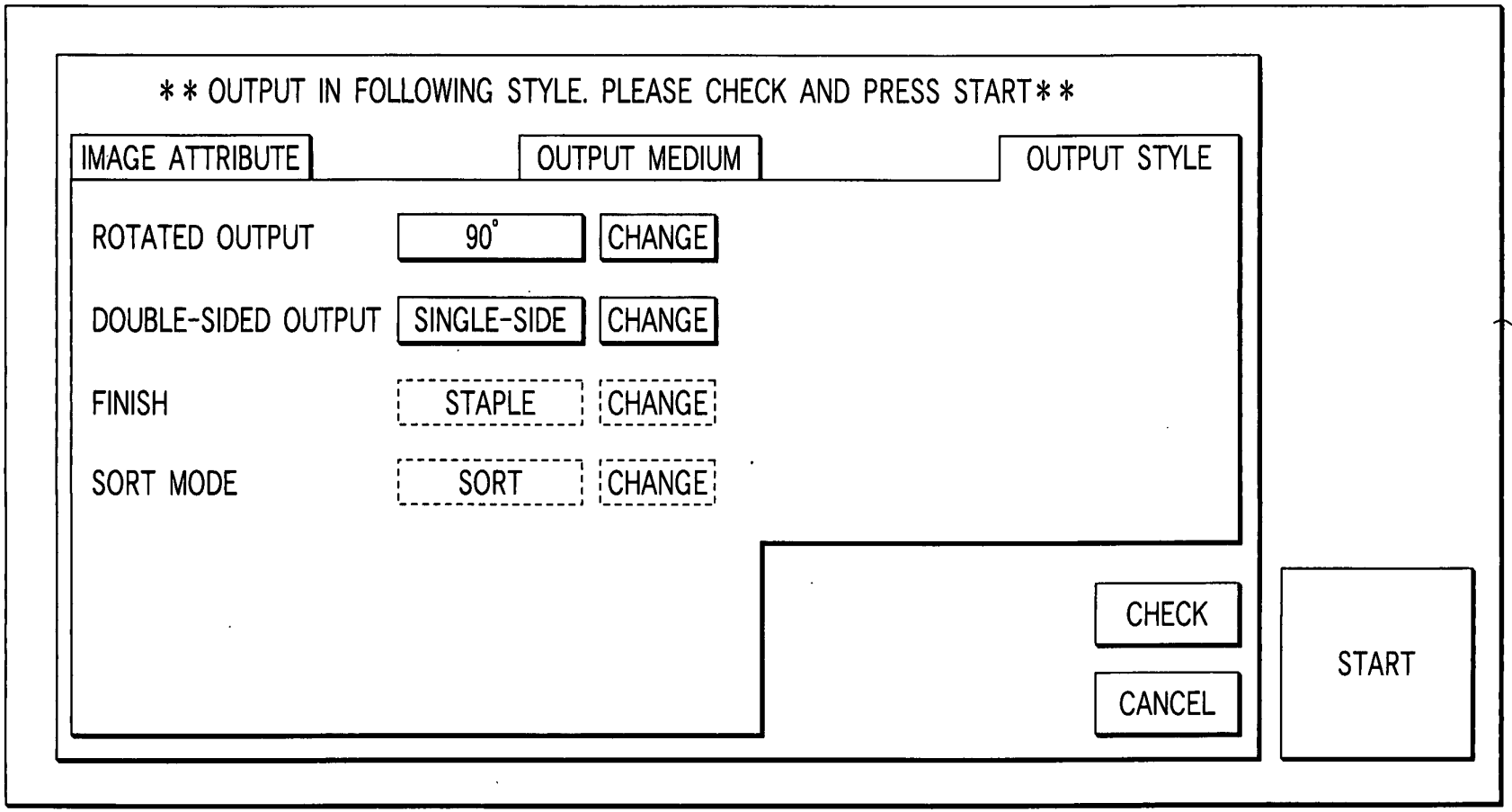

FIG. 9

Title: IMAGE FORMING SYSTEM
Inventor(s): Yoji MATSUDA
Appl. No.: 09/761,777

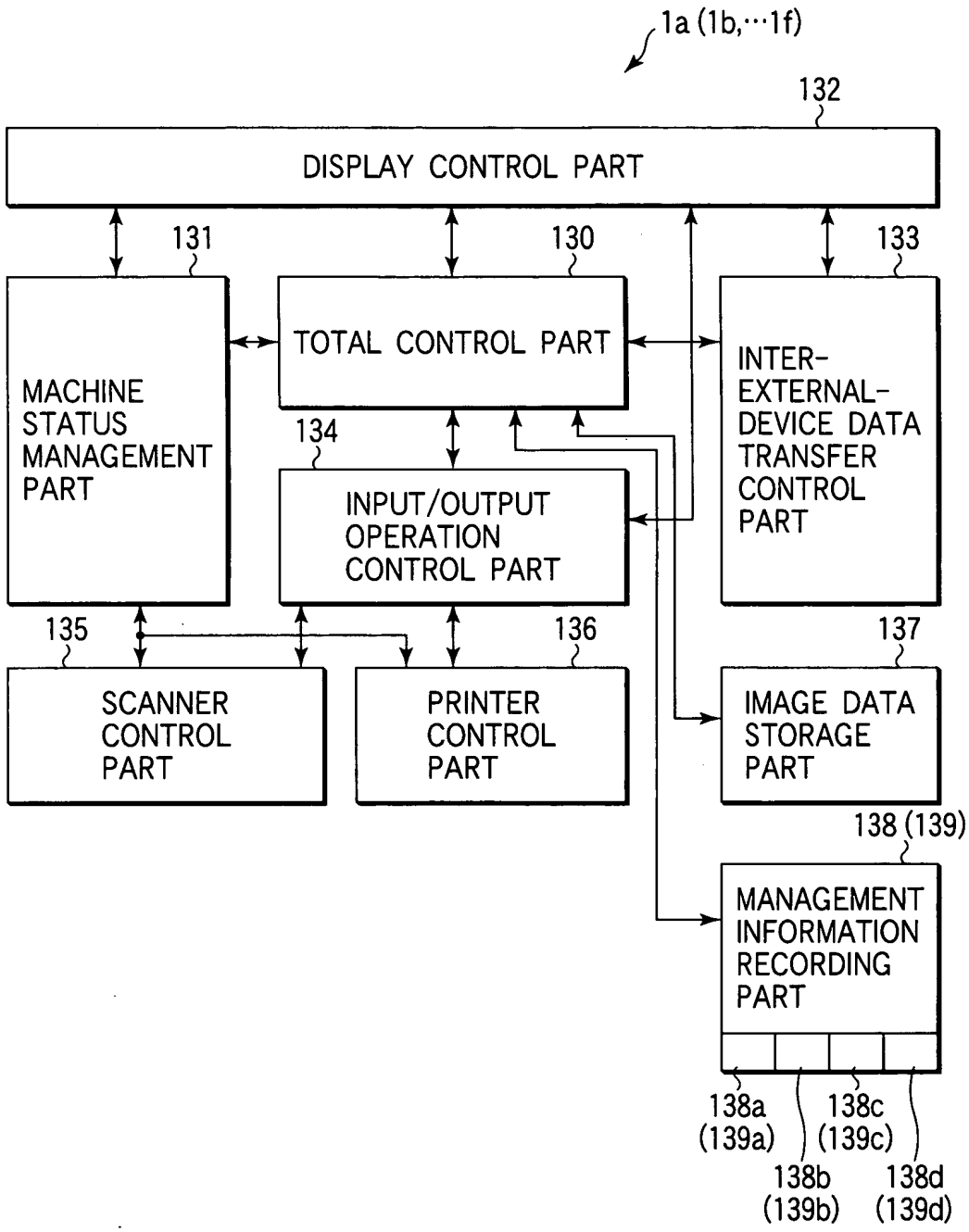
1a (1b,···1f)
132
DISPLAY CONTROL PART
131
130
133
MACHINE STATUS MANAGEMENT PART
TOTAL CONTROL PART
INTER-EXTERNAL-DEVICE DATA TRANSFER CONTROL PART
134
INPUT/OUTPUT OPERATION CONTROL PART
135
136
137
SCANNER CONTROL PART
PRINTER CONTROL PART
IMAGE DATA STORAGE PART
138 (139)
MANAGEMENT INFORMATION RECORDING PART
138a (139a)
138c (139c)
138b (139b)
138d (139d)

FIG. 10

1999P00276US

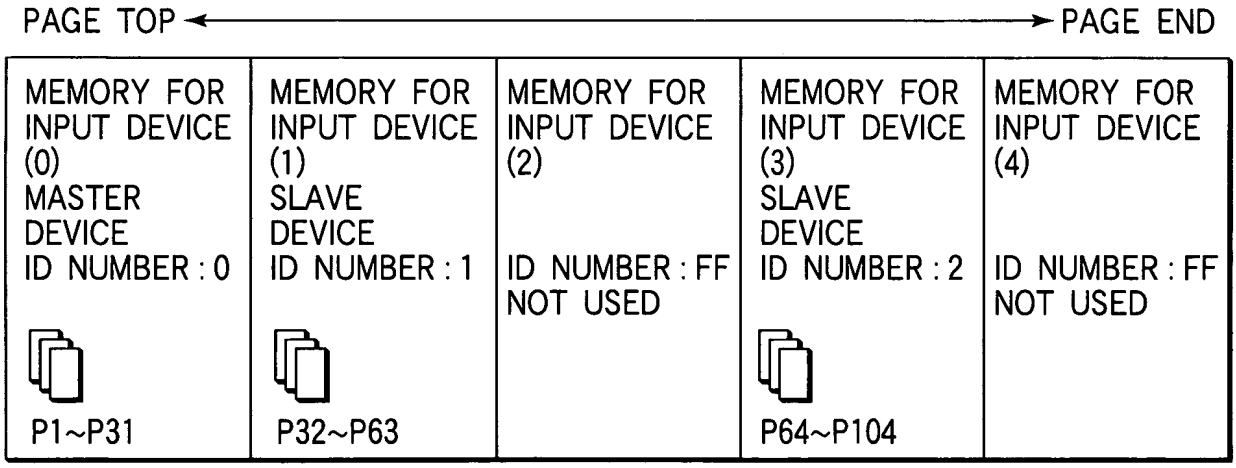

FIG. 11

(IMAGE FILE MANAGEMENT TABLE)

JOBID	0x01
INPUT DEVICE INFORMATION	0x0C
PAGE NUMBER (DEVICE 0)	0x1F
PAGE NUMBER (DEVICE 1)	0x20
PAGE NUMBER (DEVICE 2)	0
PAGE NUMBER (DEVICE 3)	0x29
PAGE NUMBER (DEVICE 4)	0
PAGE NUMBER (DEVICE 5)	0
PAGE NUMBER (DEVICE 6)	0
PAGE NUMBER (DEVICE 7)	0
INPUT OPERATION STATUS	INPUTTING
TOTAL PAGE	0x68
OUTPUT DEVICE SPECIFICATION	0x05

~138a

FIG. 12

(COPY ATTRIBUTE/STYLE/MEDIUM INFORMATION TABLE)

IMAGE ATTRIBUTES	INPUT DEVICE NUMBER	0x00
	JOBID	0x01
	FILE NAME	1_0_***.jpg
	PAGE NUMBER	0x1F
	INPUT METHOD	ADF
	ORIGINAL DOCUMENT SIZE	A4
	MAGNIFICATION	71
	COLOR OR BLACK	COLOR
	FORMAT	JPEG
	DENSITY ADJUSTMENT	AUTOMATIC
	COLOR ADJUSTMENT	NO ADJUSTMENT
	EDIT	WHITE/BLACK REVERSE
	EDIT	BINDING MARGIN
	EDIT	NOT SPECIFIED
	MODE	PHOTOGRAPH
OUTPUT MEDIUM	MEDIUM	THICK PAPER
	SUPPLY SOURCE	1ST CASSETTE
OUTPUT STYLE	OUTPUT STYLE	40°
	DOUBLE-SIDED OUTPUT	SINGLE-SIDE
	FINISH	STAPLE
	SORT MODE	SORT
IMAGE ATTRIBUTES	INPUT DEVICE NUMBER	0x01
	JOBID	0x01
	FILE NAME	1_0_***.jpg
	PAGE NUMBER	0x20
	INPUT METHOD	ADF
	ORIGINAL DOCUMENT SIZE	A4
	MAGNIFICATION	100
	COLOR OR BLACK	BLACK
	FORMAT	JPEG
	DENSITY ADJUSTMENT	AUTOMATIC
	COLOR ADJUSTMENT	NO ADJUSTMENT
	EDIT	WHITE/BLACK REVERSE
	EDIT	BINDING MARGIN
	EDIT	NOT SPECIFIED
	MODE	TEXT

~138b

FIG. 13

OUTPUT MEDIUM	MEDIUM	NORMAL PAPER
	FEED SOURCE	MANVAL INSERTION
OUTPUT STYLE	ROTATED OUTPUT	90°
	DOUBLE-SIDED OUTPUT	NO
	FINISH	STAPLE
	SORT MODE	NON-SORT
	:	:
IMAGE ATTRIBUTES	INPUT DEVICE NUMBER	0x07
	JOBID	0xff
	FILE NAME	0xff
	PAGE NUMBER	0xff
	INPUT METHOD	0xff
	ORIGINAL DOCUMENT SIZE	0xff
	MAGNIFICATION	0xff
	COLOR OR BLACK	0xff
	FORMAT	0xff
	DENSITY ADJUSTMENT	0xff
	COLOR ADJUSTMENT	0xff
	EDIT	0xff
	EDIT	0xff
	EDIT	0xff
	MODE	0xff
OUTPUT MEDIUM	MEDIUM	0xff
	FEED SOURCE	0xff
OUTPUT STYLE	OUTPUT MEDIUM	0xff
	DOUBLE-SIDED OUTPUT	0xff
	FINISH	0xff
	SORT MODE	0xff

138b

FIG. 14

(DEVICE MANAGEMENT TABLE)

INPUT DEVICE NUMBER	0x00
OPERATION STATUS ERROR NUMBER	BEING USED
ERROR NUMBER	0x00
INPUT PAGE NUMBER	0x1F
IP ADDRESS	192.168.***
PWD	****
OPTION	ADF
MEMORY SIZE	3GB
DEVICE IDENTIFICATION ID	0
MASTER/SLAVE DEVICE SPECIFICATION	MASTER
OUTPUT DEVICE SPECIFICATION	0x00
INPUT DEVICE NUMBER	0x01
OPERATION STATUS ERROR NUMBER	WORKING
ERROR NUMBER	0x00
INPUT PAGE NUMBER	0x20
IP ADDRESS	192.168.***
PWD	****
OPTION	ADF
MEMORY SIZE	48MB
DEVICE IDENTIFICATION ID	1
MASTER/SLAVE DEVICE SPECIFICATION	SLAVE
OUTPUT DEVICE SPECIFICATION	0x00
INPUT DEVICE NUMBER	0x02
OPERATION STATUS ERROR NUMBER	BEING USED
ERROR NUMBER	0x00
INPUT PAGE NUMBER	0x1F
IP ADDRESS	192.168.***
PWD	****
OPTION	ADF/ADU
MEMORY SIZE	64MB
DEVICE IDENTIFICATION ID	2
MASTER/SLAVE DEVICE SPECIFICATION	NOT SPECIFIED
OUTPUT DEVICE SPECIFICATION	0x00
:	:

138c

FIG. 15

INPUT DEVICE NUMBER	0x07
OPERATION STATUS ERROR NUMBER	0xff
ERROR NUMBER	0xff
INPUT PAGE NUMBER	0xff
IP ADDRESS	0xff
PWD	0xff
OPTION	0xff
MEMORY SIZE	0xff
DEVICE ENTIFICATION ID	0xff
MASTER/SLABE DEVICE SPECIFICATION	0xff
OUTPUT DEVICE SPECIFICATION	0x00

138c

FIG. 16

(PRINT DEVICE MANAGEMENT TABLE)

OUTPUT DEVICE NUMBER	0x05
OPERATION STATUS	FREE
COLOR PERFORMANCE	FULLCOLOR
ERROR NUMBER	0x00
OUTPUT PAGE NUMBER	0xFF
IP ADDRESS	192.168.***
PWD	****
DOUBLE-SIDED DEVICE	ON
SORTER	ON
STAPLE	ON
ROTATED OUTPUT	POSSIBLE
MEMORY CAPACITY	3GB
LARGE CAPACITY PAPER FEED CASSETTE	A4
1ST CASSETTE SIZE	A4R
1ST CASSETTE MEDIUM	NORMAL
2ND CASSETTE SIZE	A3
2ND CASSETTE MEDIUM	NORMAL
3RD CASSETTE SIZE	A4
3RD CASSETTE MEDIUM	THICK PAPER
4TH CASSETTE SIZE	B4
4TH CASSETTE MEDIUM	V
MANUAL INSERTION SIZE	A4
MANUAL INSERTION MEDIUM	COLOR-DEDICATED PAPER

138d

FIG. 17

(INPUT OPERATION MANAGEMENT TABLE)

JOBID	0x01
MASTER DEVICE INFORMATION	0x01
INPUTTED PAGE NUMBER	0x1F
OPERATION STATUS	INPUTTING
ERROR TYPE	0xFF
SLAVE DEVICE SPECIFICATION	0x01
MASTER DEVICE SPECIFICATION	0x00

139a

FIG. 18

(COPY ATTRIBUTE/STYLE/MEDIUM INFORMATION)

IMAGE ATTRIBUTES	INPUT DEVICE NUMBER	0x00
	JOBID	0x01
	FILE NAME	1_0_***.jpg
	PAGE NUMBER	0x1F
	INPUT METHOD	ADF
	ORIGINAL DOCUMENT SIZE	A4
	MAGNIFICATION	71
	COLOR OR BLACK	COLOR
	FORMAT	JPEG
	DENSITY ADJUSTMENT	AUTOMATIC
	COLOR ADJUSTMENT	NO ADJUSTMENT
	EDIT	WHITE/BLACK REVERSE
	EDIT	BINDING MARGIN
	EDIT	NOT SPECIFIED
	MODE	PHOTOGRAPH
OUTPUT MEDIUM	MEDIUM	THICK PAPER
	SUPPLY SOURCE	1ST CASSETTE
OUTPUT STYLE	OUTPUT STYLE	90°
	DOUBLE-SIDED OUTPUT	SINGLE-SIDE
	FINISH	STAPLE
	SORT MODE	SORT

139b

FIG. 19

(DEVICE MANAGEMENT TABLE)

INPUT DEVICE NUMBER	0x00
OPERATION STATUS ERROR NUMBER	WORKING
ERROR NUMBER	0x00
INPUT PAGE NUMBER	0x20
IP ADDRESS	192.168.***
PWD	****
OPTION	ADF
MEMORY SIZE	48MB
DEVICE IDENTIFICATION ID	0
SLAVE DEVICE SPECIFICATION	0x01
OUTPUT DEVICE SPECIFICATION	0x00
INPUT DEVICE NUMBER	0x01
OPERATION STATUS ERROR NUMBER	BEING USED
ERROR NUMBER	0x00
INPUT PAGE NUMBER	0x1F
IP ADDRESS	192.168.***
PWD	****
OPTION	ADF
MEMORY SIZE	48MB
DEVICE IDENTIFICATION ID	1
SLAVE DEVICE SPECIFICATION	0x00
OUTPUT DEVICE SPECIFICATION	0x00
:	:
INPUT DEVICE NUMBER	0x07
OPERATION STATUS ERROR NUMBER	0xff
ERROR NUMBER	0xff
INPUT PAGE NUMBER	0xff
IP ADDRESS	0xff
PWD	0xff
OPTION	0xff
MEMORY SIZE	0xff
DEVICE IDENTIFICATION ID	0xff
SLAVE DEVICE SPECIFICATION	0xff
OUTPUT DEVICE SPECIFICATION	0x00

~139c

FIG. 20

(PRINT DEVICE MANAGEMENT TABLE)

OUTPUT DEVICE NUMBER	0x05
OPERATION STATUS	FREE
COLOR PERFORMANCE	FULLCOLOR
ERROR NUMBER	0x00
OUTPUT PAGE NUMBER	0xFF
IP ADDRESS	192.168.***
PWD	****
DOUBLE-SIDED DEVICE	ON
SORTER	ON
STAPLE	ON
ROTATED OUTPUT	POSSIBLE
MEMORY CAPACITY	3GB
LARGE CAPACITY PAPER FEED CASSETTE	A4
1ST CASSETTE SIZE	A4R
1ST CASSETTE MEDIUM	NORMAL
2ND CASSETTE SIZE	A3
2ND CASSETTE MEDIUM	NORMAL
3RD CASSETTE SIZE	A4
3RD CASSETTE MEDIUM	THICK PAPER
4TH CASSETTE SIZE	B4
4TH CASSETTE MEDIUM	V
MANUAL INSERTION SIZE	A4
MANUAL INSERTION MEDIUM	COLOR-DEDICATED PAPER

139d

FIG. 21

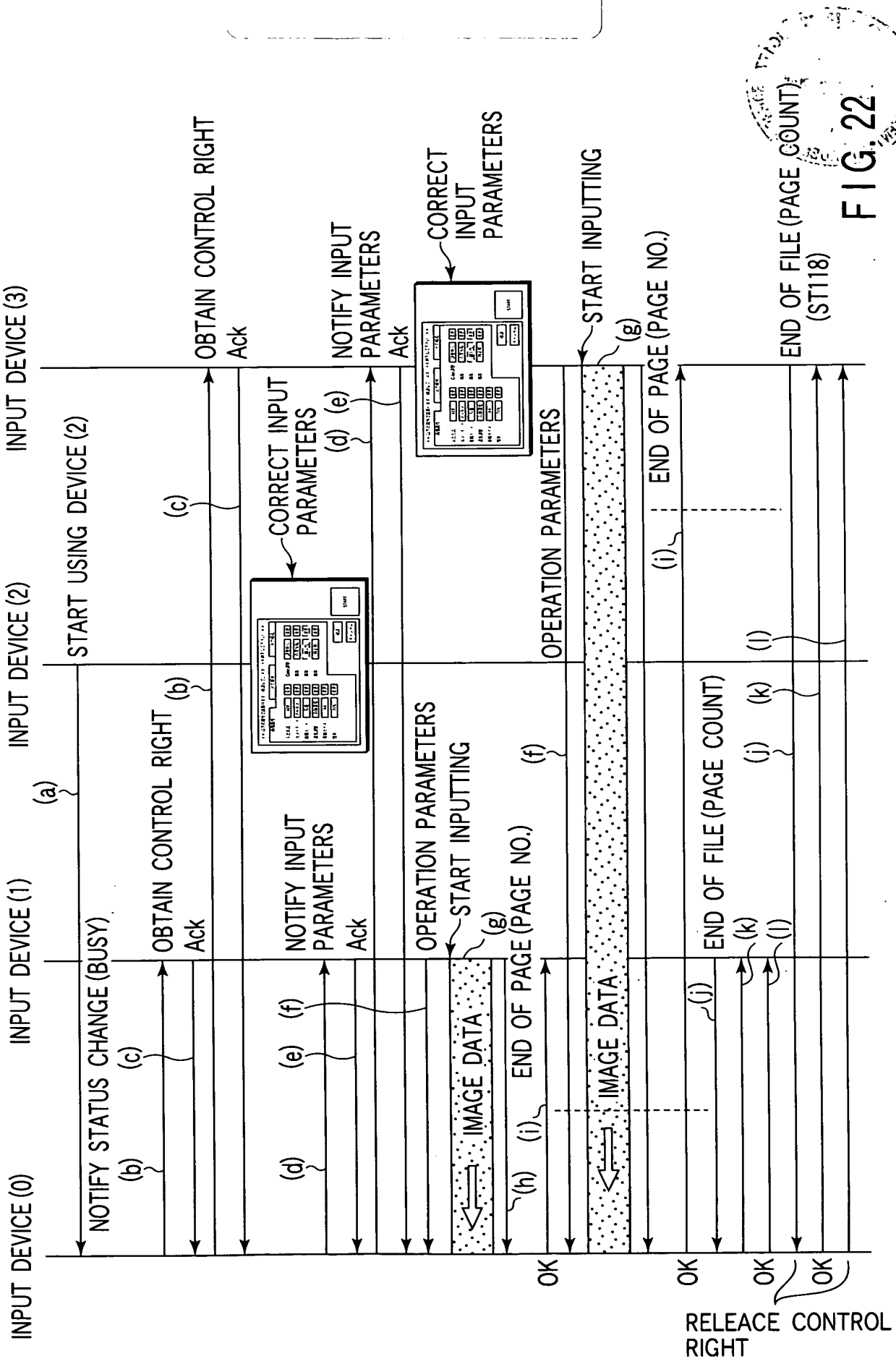
INPUT DEVICE (0)
INPUT DEVICE (1)
INPUT DEVICE (2)
INPUT DEVICE (3)
NOTIFY STATUS CHANGE (BUSY)
OBTAIN CONTROL RIGHT
Ack
START USING DEVICE (2)
OBTAIN CONTROL RIGHT
Ack
NOTIFY INPUT PARAMETERS
Ack
CORRECT INPUT PARAMETERS
NOTIFY INPUT PARAMETERS
Ack
CORRECT INPUT PARAMETERS
OPERATION PARAMETERS
START INPUTTING
OPERATION PARAMETERS
START INPUTTING
IMAGE DATA
END OF PAGE (PAGE NO.)
END OF PAGE (PAGE NO.)
IMAGE DATA
END OF FILE (PAGE COUNT)
END OF FILE (PAGE COUNT)
(ST118)
OK
OK
OK
OK
RELEACE CONTROL RIGHT

FIG. 22

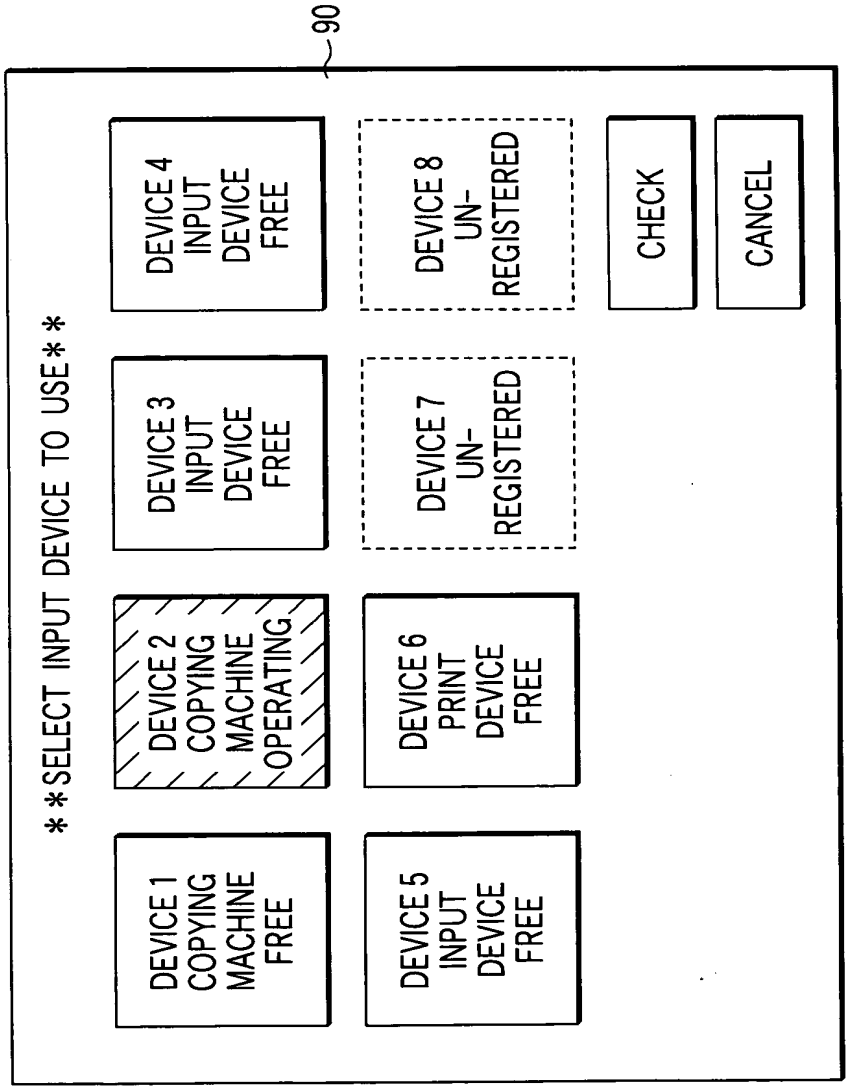
90
SELECT INPUT DEVICE TO USE
DEVICE 1 COPYING MACHINE FREE
DEVICE 2 COPYING MACHINE OPERATING
DEVICE 3 INPUT DEVICE FREE
DEVICE 4 INPUT DEVICE FREE
DEVICE 5 INPUT DEVICE FREE
DEVICE 6 PRINT DEVICE FREE
DEVICE 7 UN-REGISTERED
DEVICE 8 UN-REGISTERED
CHECK
CANCEL

FIG. 23

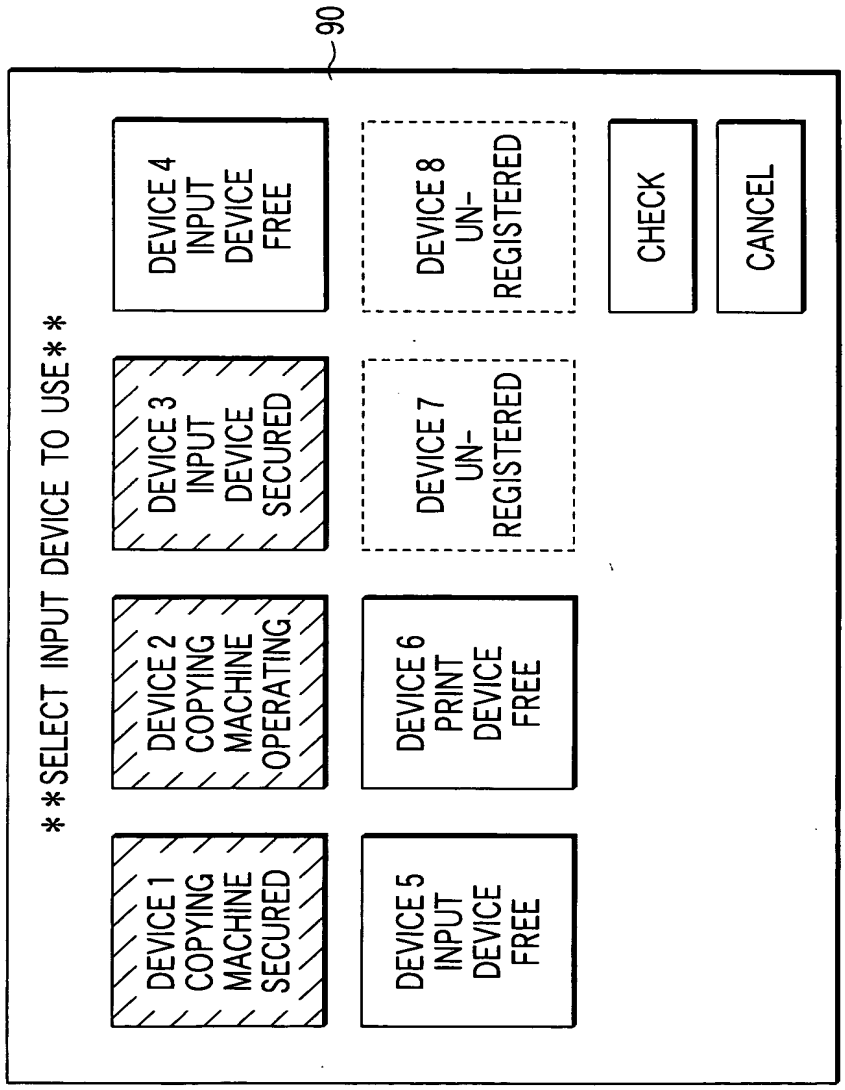
90
SELECT INPUT DEVICE TO USE
DEVICE 1 COPYING MACHINE SECURED
DEVICE 2 COPYING MACHINE OPERATING
DEVICE 3 INPUT DEVICE SECURED
DEVICE 4 INPUT DEVICE FREE
DEVICE 5 INPUT DEVICE FREE
DEVICE 6 PRINT DEVICE FREE
DEVICE 7 UN-REGISTERED
DEVICE 8 UN-REGISTERED
CHECK
CANCEL

FIG. 24

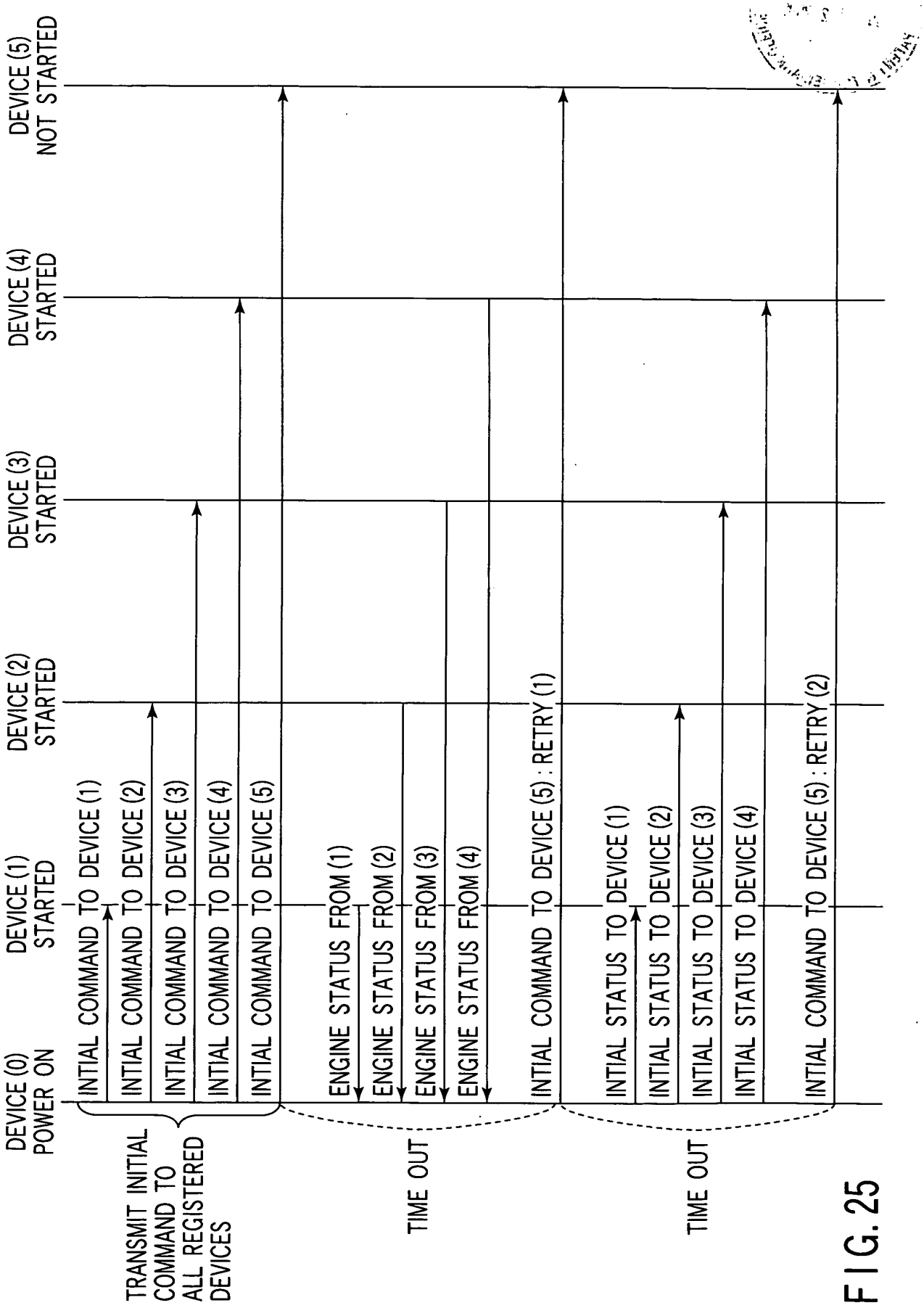
DEVICE (0) POWER ON
DEVICE (1) STARTED
DEVICE (2) STARTED
DEVICE (3) STARTED
DEVICE (4) STARTED
DEVICE (5) NOT STARTED
TRANSMIT INITIAL COMMAND TO ALL REGISTERED DEVICES
INTIAL COMMAND TO DEVICE (1)
INTIAL COMMAND TO DEVICE (2)
INTIAL COMMAND TO DEVICE (3)
INTIAL COMMAND TO DEVICE (4)
INTIAL COMMAND TO DEVICE (5)
TIME OUT
ENGINE STATUS FROM (1)
ENGINE STATUS FROM (2)
ENGINE STATUS FROM (3)
ENGINE STATUS FROM (4)
INTIAL COMMAND TO DEVICE (5) : RETRY (1)
TIME OUT
INTIAL STATUS TO DEVICE (1)
INTIAL STATUS TO DEVICE (2)
INTIAL STATUS TO DEVICE (3)
INTIAL STATUS TO DEVICE (4)
INTIAL COMMAND TO DEVICE (5) : RETRY (2)

FIG. 25

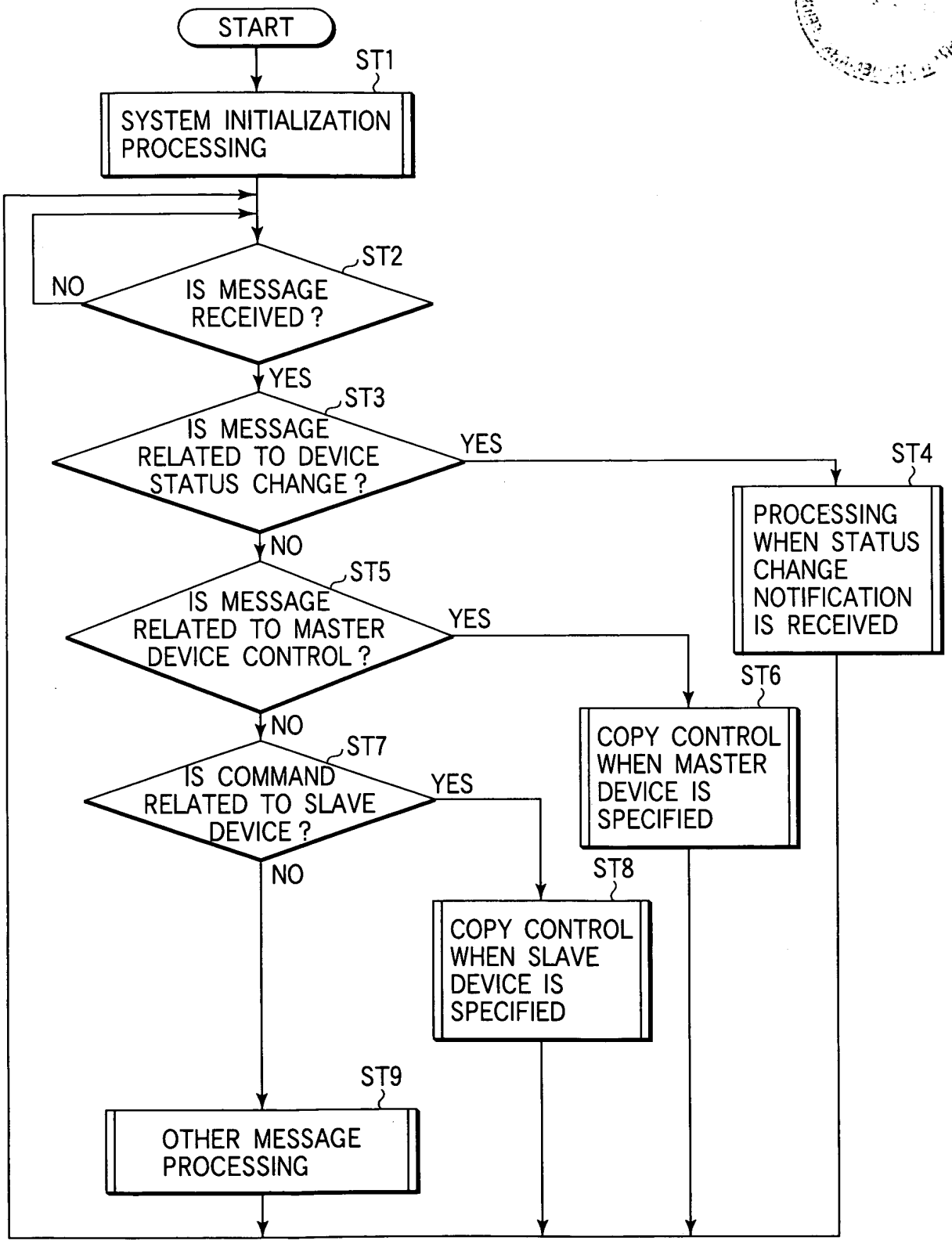
START
ST1
SYSTEM INITIALIZATION PROCESSING
ST2
NO
IS MESSAGE RECEIVED ?
YES
ST3
IS MESSAGE RELATED TO DEVICE STATUS CHANGE ?
YES
ST4
PROCESSING WHEN STATUS CHANGE NOTIFICATION IS RECEIVED
NO
ST5
IS MESSAGE RELATED TO MASTER DEVICE CONTROL ?
YES
ST6
COPY CONTROL WHEN MASTER DEVICE IS SPECIFIED
NO
ST7
IS COMMAND RELATED TO SLAVE DEVICE ?
YES
ST8
COPY CONTROL WHEN SLAVE DEVICE IS SPECIFIED
NO
ST9
OTHER MESSAGE PROCESSING

FIG. 26

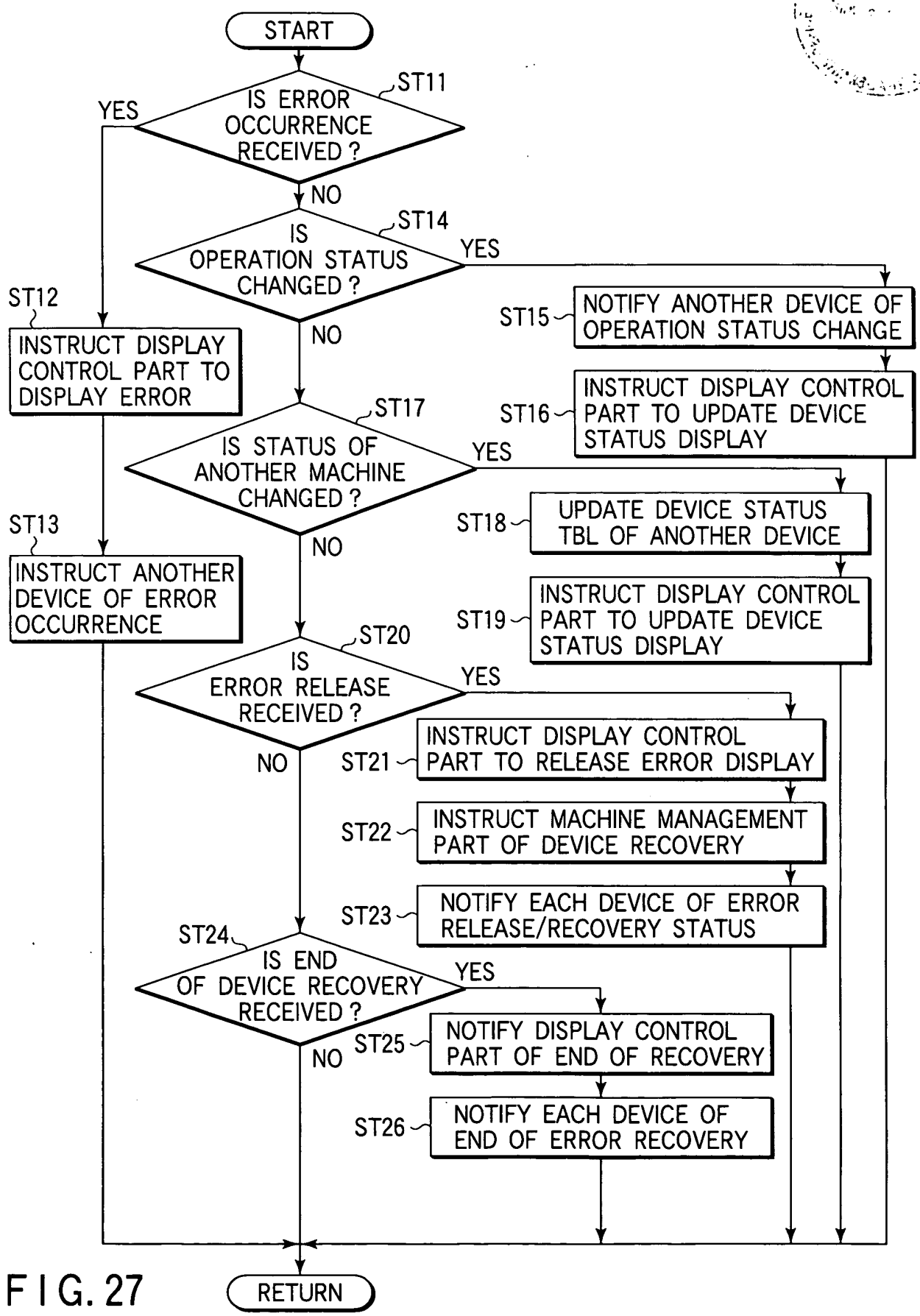
START
ST11
IS ERROR OCCURRENCE RECEIVED ?
YES
NO
ST14
IS OPERATION STATUS CHANGED ?
YES
NO
ST12
INSTRUCT DISPLAY CONTROL PART TO DISPLAY ERROR
ST15
NOTIFY ANOTHER DEVICE OF OPERATION STATUS CHANGE
ST16
INSTRUCT DISPLAY CONTROL PART TO UPDATE DEVICE STATUS DISPLAY
ST17
IS STATUS OF ANOTHER MACHINE CHANGED ?
YES
NO
ST13
INSTRUCT ANOTHER DEVICE OF ERROR OCCURRENCE
ST18
UPDATE DEVICE STATUS TBL OF ANOTHER DEVICE
ST19
INSTRUCT DISPLAY CONTROL PART TO UPDATE DEVICE STATUS DISPLAY
ST20
IS ERROR RELEASE RECEIVED ?
YES
NO
ST21
INSTRUCT DISPLAY CONTROL PART TO RELEASE ERROR DISPLAY
ST22
INSTRUCT MACHINE MANAGEMENT PART OF DEVICE RECOVERY
ST23
NOTIFY EACH DEVICE OF ERROR RELEASE/RECOVERY STATUS
ST24
IS END OF DEVICE RECOVERY RECEIVED ?
YES
NO
ST25
NOTIFY DISPLAY CONTROL PART OF END OF RECOVERY
ST26
NOTIFY EACH DEVICE OF END OF ERROR RECOVERY
RETURN

FIG. 27

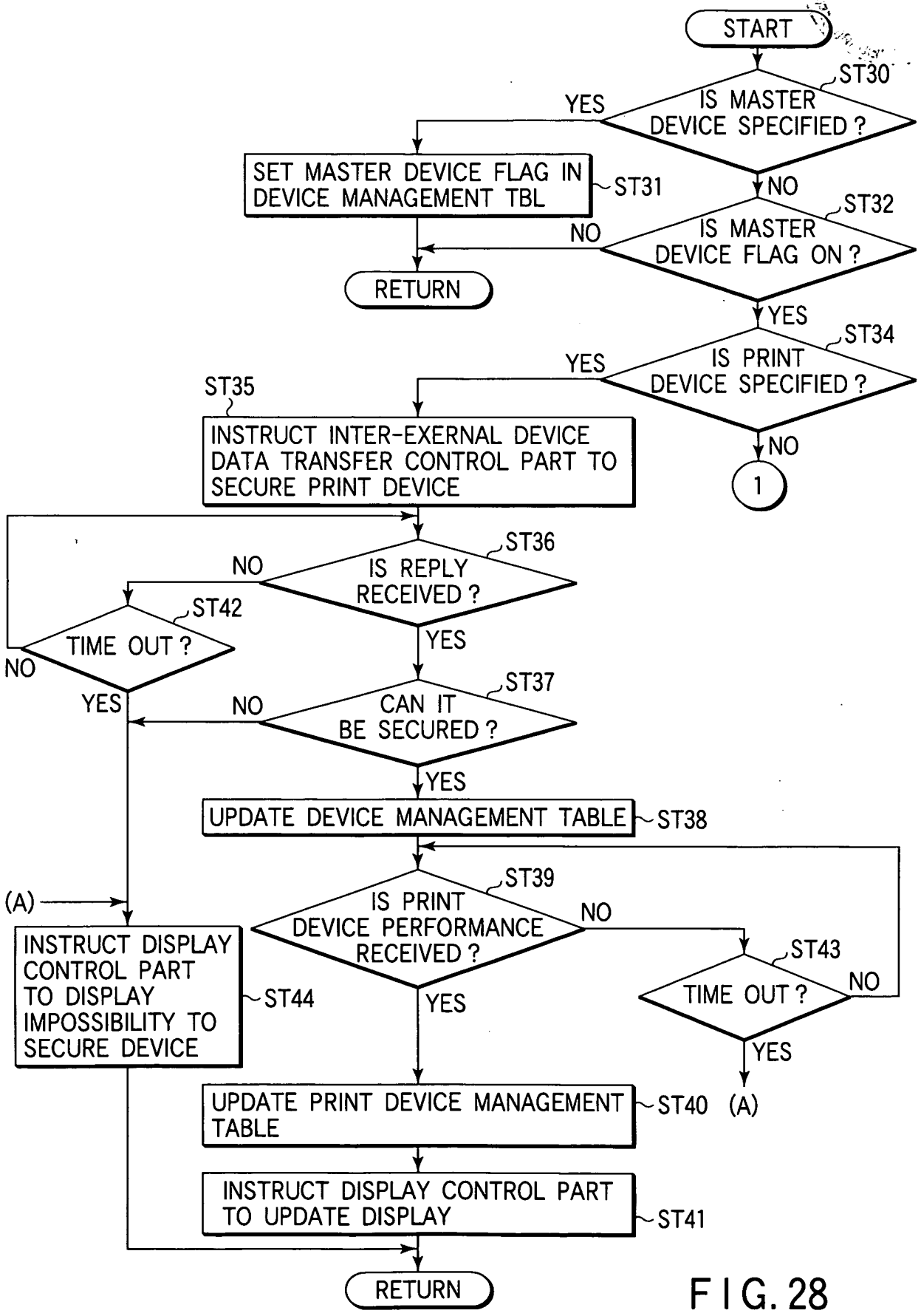
START
ST30
IS MASTER DEVICE SPECIFIED ?
YES
NO
SET MASTER DEVICE FLAG IN DEVICE MANAGEMENT TBL
ST31
ST32
IS MASTER DEVICE FLAG ON ?
NO
YES
RETURN
ST34
IS PRINT DEVICE SPECIFIED ?
YES
NO
1
ST35
INSTRUCT INTER-EXERNAL DEVICE DATA TRANSFER CONTROL PART TO SECURE PRINT DEVICE
ST36
IS REPLY RECEIVED ?
NO
YES
ST42
TIME OUT ?
NO
YES
ST37
CAN IT BE SECURED ?
NO
YES
UPDATE DEVICE MANAGEMENT TABLE
ST38
(A)
ST39
IS PRINT DEVICE PERFORMANCE RECEIVED ?
NO
YES
INSTRUCT DISPLAY CONTROL PART TO DISPLAY IMPOSSIBILITY TO SECURE DEVICE
ST44
ST43
TIME OUT ?
NO
YES
(A)
UPDATE PRINT DEVICE MANAGEMENT TABLE
ST40
INSTRUCT DISPLAY CONTROL PART TO UPDATE DISPLAY
ST41
RETURN

FIG. 28

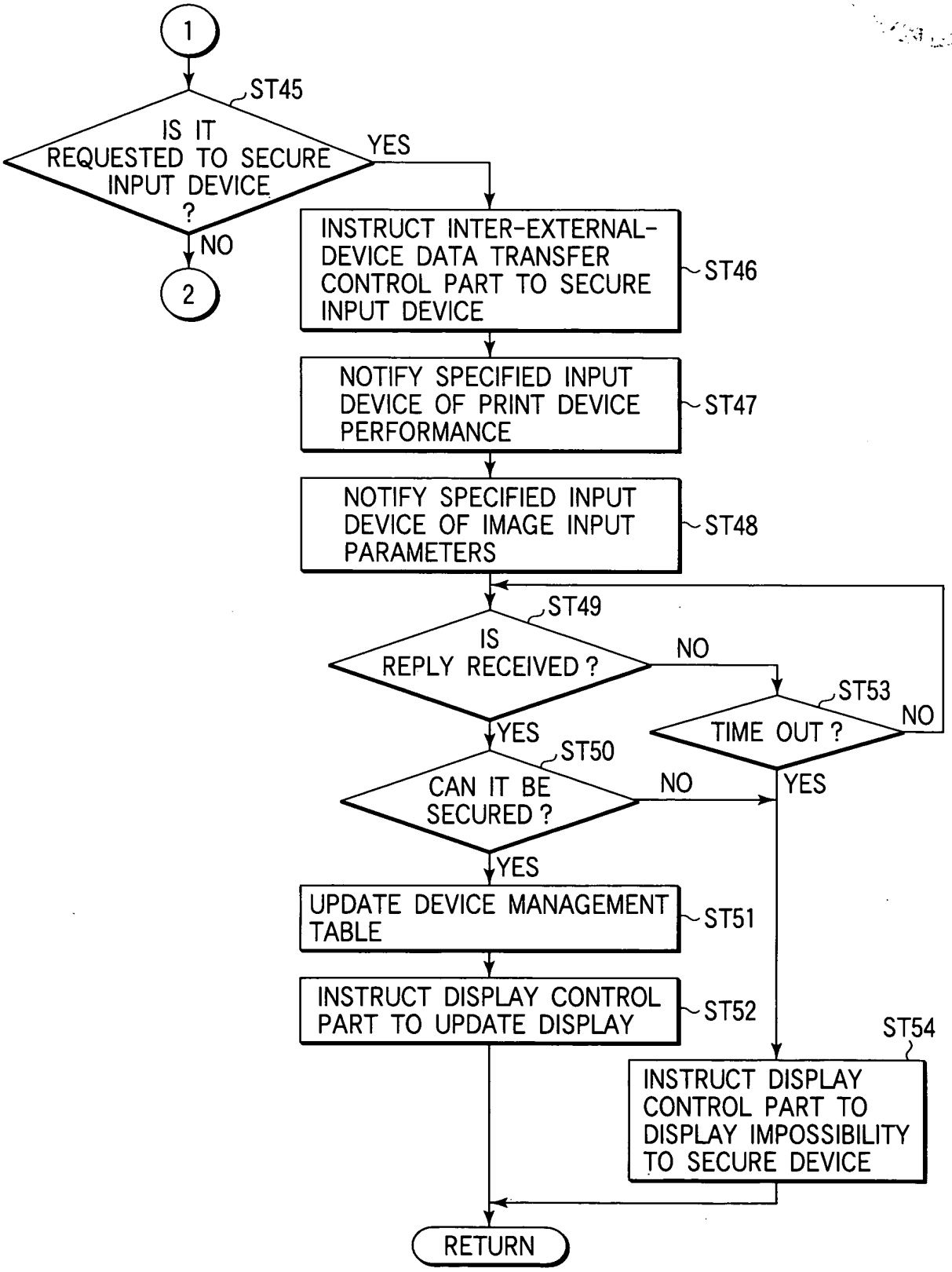
1
ST45
IS IT REQUESTED TO SECURE INPUT DEVICE ?
YES
NO
2
INSTRUCT INTER-EXTERNAL-DEVICE DATA TRANSFER CONTROL PART TO SECURE INPUT DEVICE
ST46
NOTIFY SPECIFIED INPUT DEVICE OF PRINT DEVICE PERFORMANCE
ST47
NOTIFY SPECIFIED INPUT DEVICE OF IMAGE INPUT PARAMETERS
ST48
ST49
IS REPLY RECEIVED ?
NO
YES
ST53
TIME OUT ?
NO
YES
ST50
CAN IT BE SECURED ?
NO
YES
UPDATE DEVICE MANAGEMENT TABLE
ST51
INSTRUCT DISPLAY CONTROL PART TO UPDATE DISPLAY
ST52
ST54
INSTRUCT DISPLAY CONTROL PART TO DISPLAY IMPOSSIBILITY TO SECURE DEVICE
RETURN

FIG. 29

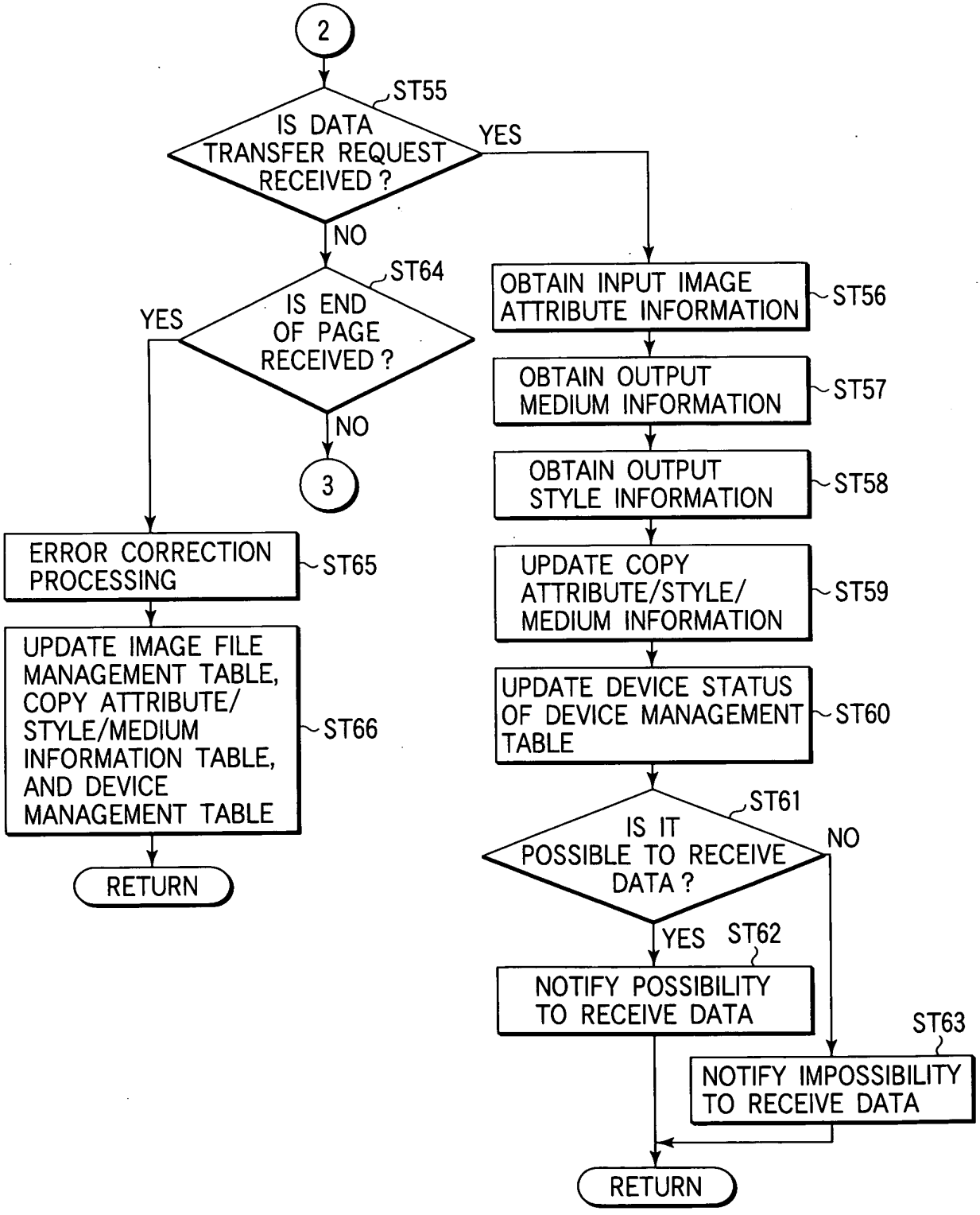
2
ST55
IS DATA TRANSFER REQUEST RECEIVED ?
YES
NO
ST64
IS END OF PAGE RECEIVED ?
YES
NO
3
ERROR CORRECTION PROCESSING
ST65
UPDATE IMAGE FILE MANAGEMENT TABLE, COPY ATTRIBUTE/ STYLE/MEDIUM INFORMATION TABLE, AND DEVICE MANAGEMENT TABLE
ST66
RETURN
OBTAIN INPUT IMAGE ATTRIBUTE INFORMATION
ST56
OBTAIN OUTPUT MEDIUM INFORMATION
ST57
OBTAIN OUTPUT STYLE INFORMATION
ST58
UPDATE COPY ATTRIBUTE/STYLE/ MEDIUM INFORMATION
ST59
UPDATE DEVICE STATUS OF DEVICE MANAGEMENT TABLE
ST60
ST61
IS IT POSSIBLE TO RECEIVE DATA ?
NO
YES
ST62
NOTIFY POSSIBILITY TO RECEIVE DATA
ST63
NOTIFY IMPOSSIBILITY TO RECEIVE DATA
RETURN

FIG. 30

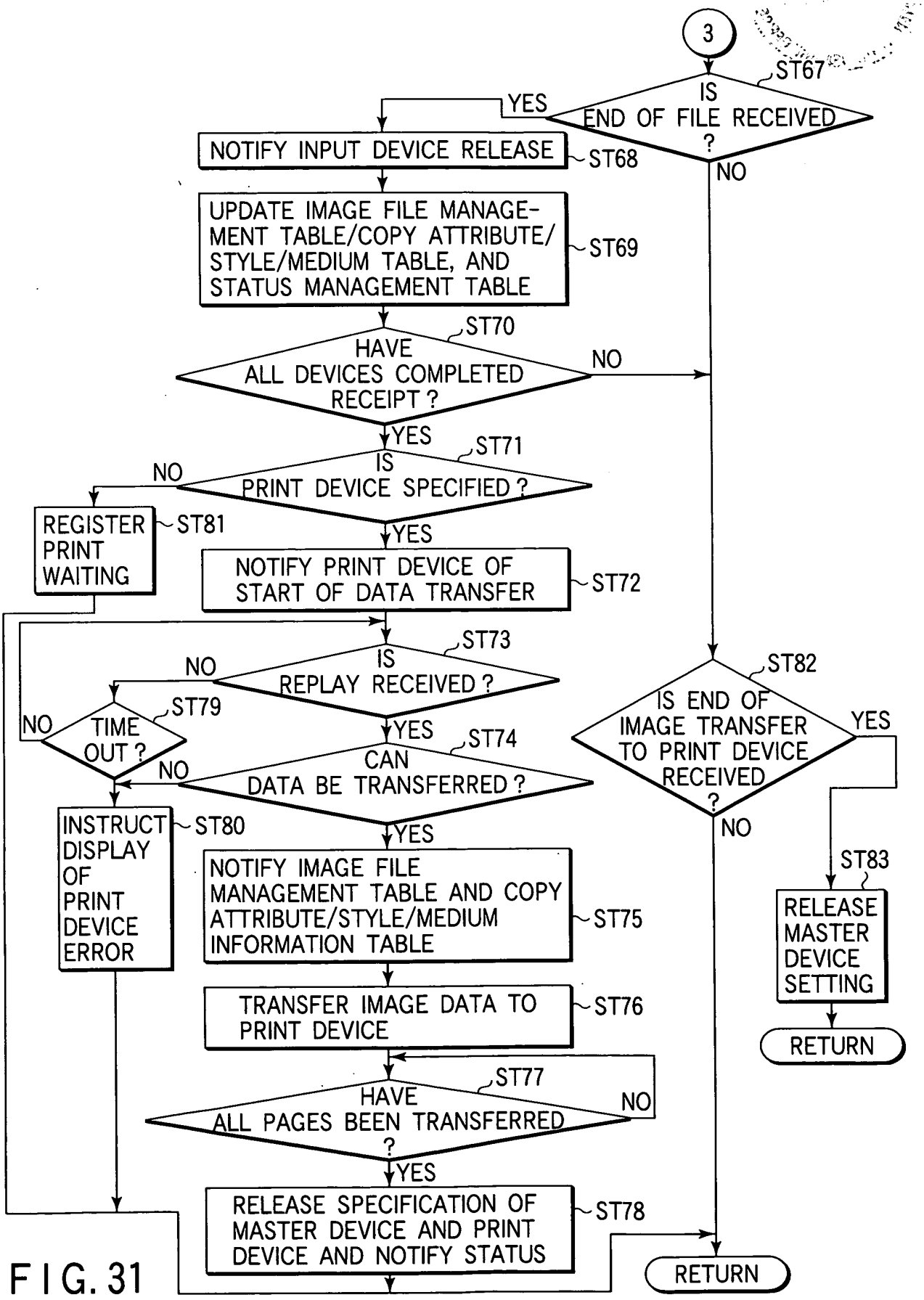
3
ST67
IS END OF FILE RECEIVED ?
YES
NO
NOTIFY INPUT DEVICE RELEASE
ST68
UPDATE IMAGE FILE MANAGEMENT TABLE/COPY ATTRIBUTE/STYLE/MEDIUM TABLE, AND STATUS MANAGEMENT TABLE
ST69
ST70
HAVE ALL DEVICES COMPLETED RECEIPT ?
NO
YES
ST71
IS PRINT DEVICE SPECIFIED ?
NO
YES
REGISTER PRINT WAITING
ST81
NOTIFY PRINT DEVICE OF START OF DATA TRANSFER
ST72
ST73
IS REPLAY RECEIVED ?
NO
YES
ST79
TIME OUT ?
NO
ST74
CAN DATA BE TRANSFERRED ?
NO
YES
INSTRUCT DISPLAY OF PRINT DEVICE ERROR
ST80
NOTIFY IMAGE FILE MANAGEMENT TABLE AND COPY ATTRIBUTE/STYLE/MEDIUM INFORMATION TABLE
ST75
TRANSFER IMAGE DATA TO PRINT DEVICE
ST76
ST77
HAVE ALL PAGES BEEN TRANSFERRED ?
NO
YES
RELEASE SPECIFICATION OF MASTER DEVICE AND PRINT DEVICE AND NOTIFY STATUS
ST78
RETURN
ST82
IS END OF IMAGE TRANSFER TO PRINT DEVICE RECEIVED ?
YES
NO
ST83
RELEASE MASTER DEVICE SETTING
RETURN

FIG. 31

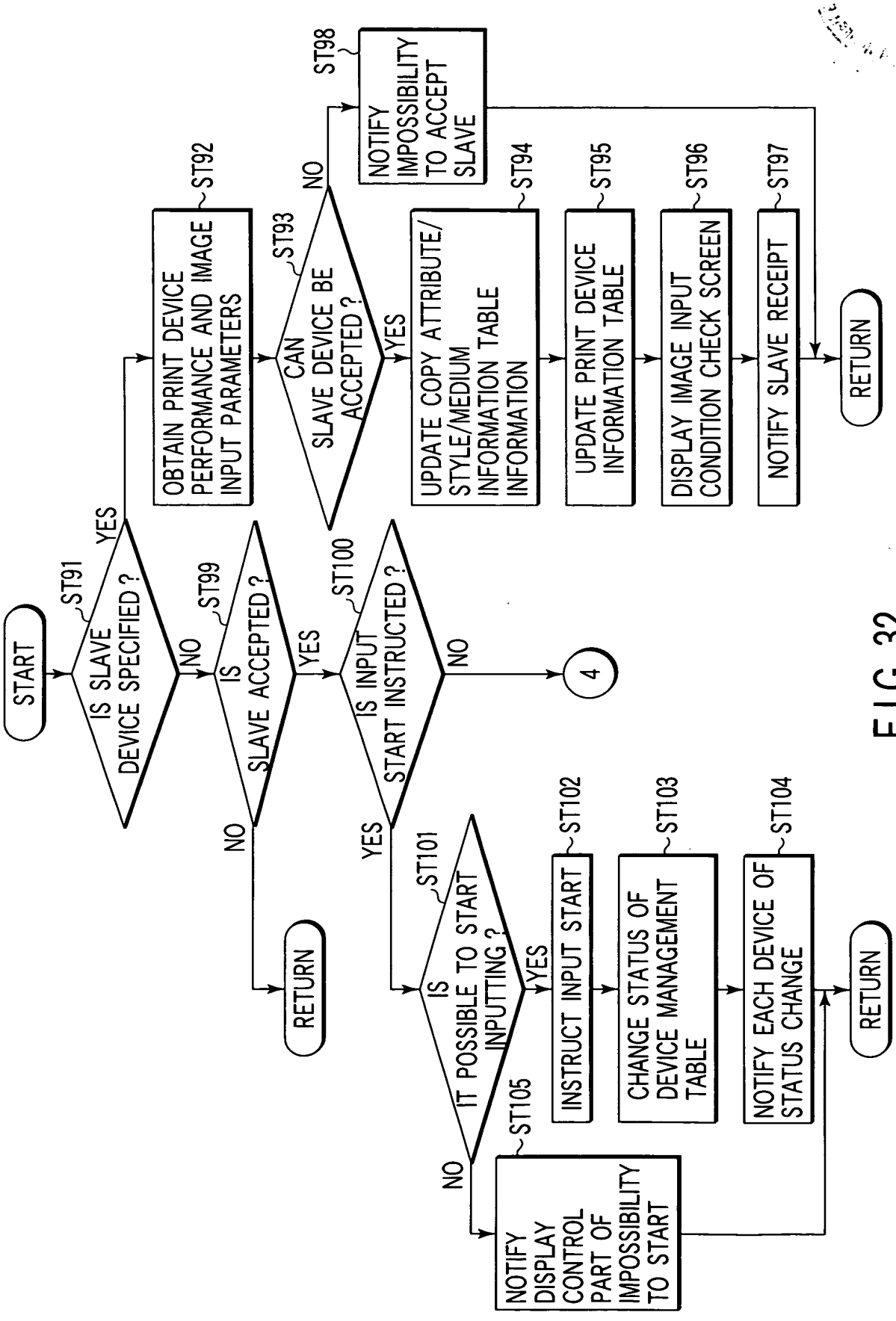
START
ST91
IS SLAVE DEVICE SPECIFIED ?
YES
NO
ST99
IS SLAVE ACCEPTED ?
YES
NO
RETURN
ST100
IS INPUT START INSTRUCTED ?
YES
NO
4
ST101
IS IT POSSIBLE TO START INPUTTING ?
YES
NO
ST102
INSTRUCT INPUT START
ST103
CHANGE STATUS OF DEVICE MANAGEMENT TABLE
ST104
NOTIFY EACH DEVICE OF STATUS CHANGE
RETURN
ST105
NOTIFY DISPLAY CONTROL PART OF IMPOSSIBILITY TO START
ST92
OBTAIN PRINT DEVICE PERFORMANCE AND IMAGE INPUT PARAMETERS
ST93
CAN SLAVE DEVICE BE ACCEPTED ?
YES
NO
ST98
NOTIFY IMPOSSIBILITY TO ACCEPT SLAVE
ST94
UPDATE COPY ATTRIBUTE/ STYLE/MEDIUM INFORMATION TABLE INFORMATION
ST95
UPDATE PRINT DEVICE INFORMATION TABLE
ST96
DISPLAY IMAGE INPUT CONDITION CHECK SCREEN
ST97
NOTIFY SLAVE RECEIPT
RETURN

FIG. 32

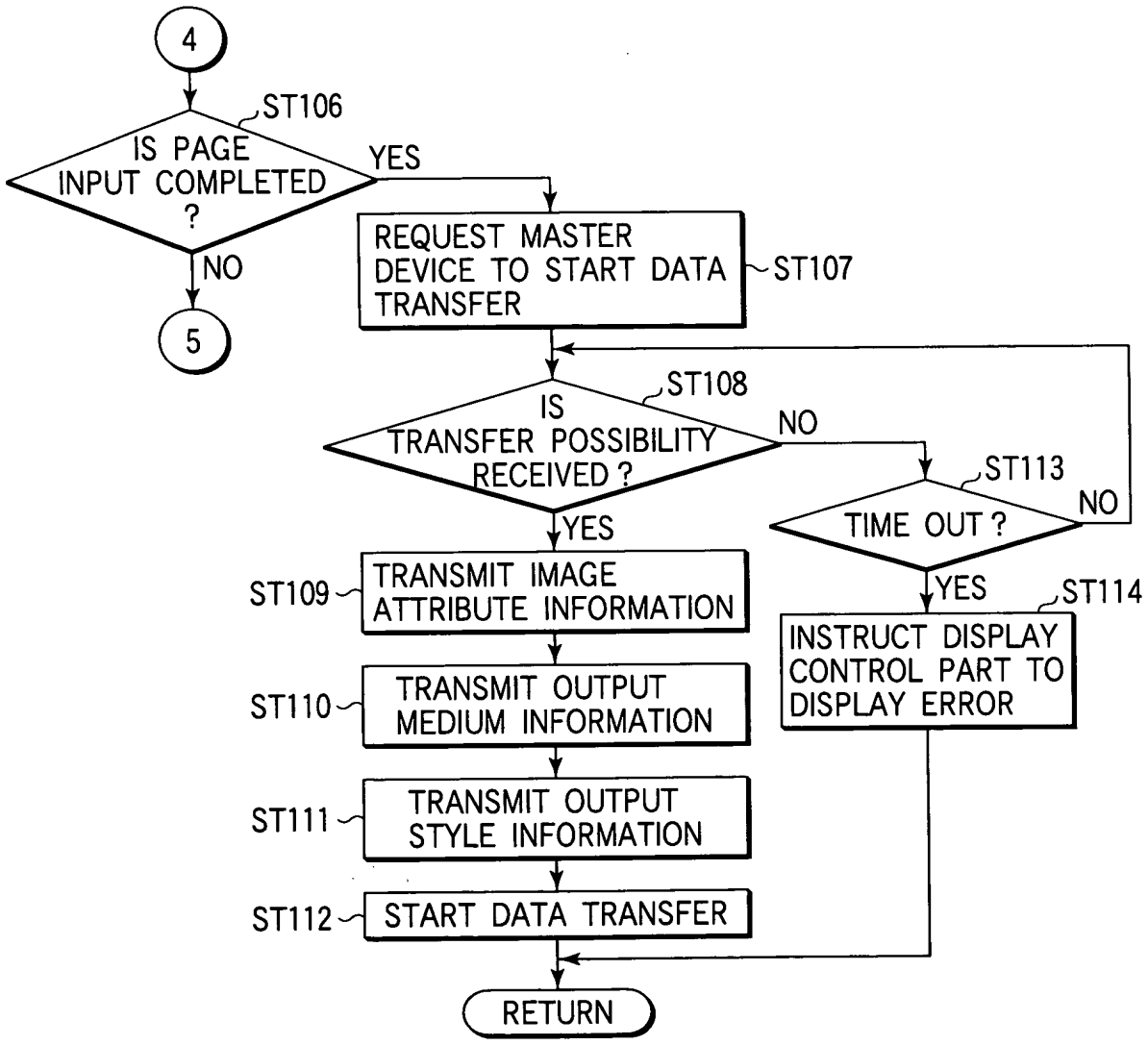
4
ST106
IS PAGE INPUT COMPLETED ?
YES
NO
5
REQUEST MASTER DEVICE TO START DATA TRANSFER
ST107
ST108
IS TRANSFER POSSIBILITY RECEIVED ?
NO
YES
ST113
TIME OUT ?
NO
YES
ST114
INSTRUCT DISPLAY CONTROL PART TO DISPLAY ERROR
ST109
TRANSMIT IMAGE ATTRIBUTE INFORMATION
ST110
TRANSMIT OUTPUT MEDIUM INFORMATION
ST111
TRANSMIT OUTPUT STYLE INFORMATION
ST112
START DATA TRANSFER
RETURN

FIG. 33

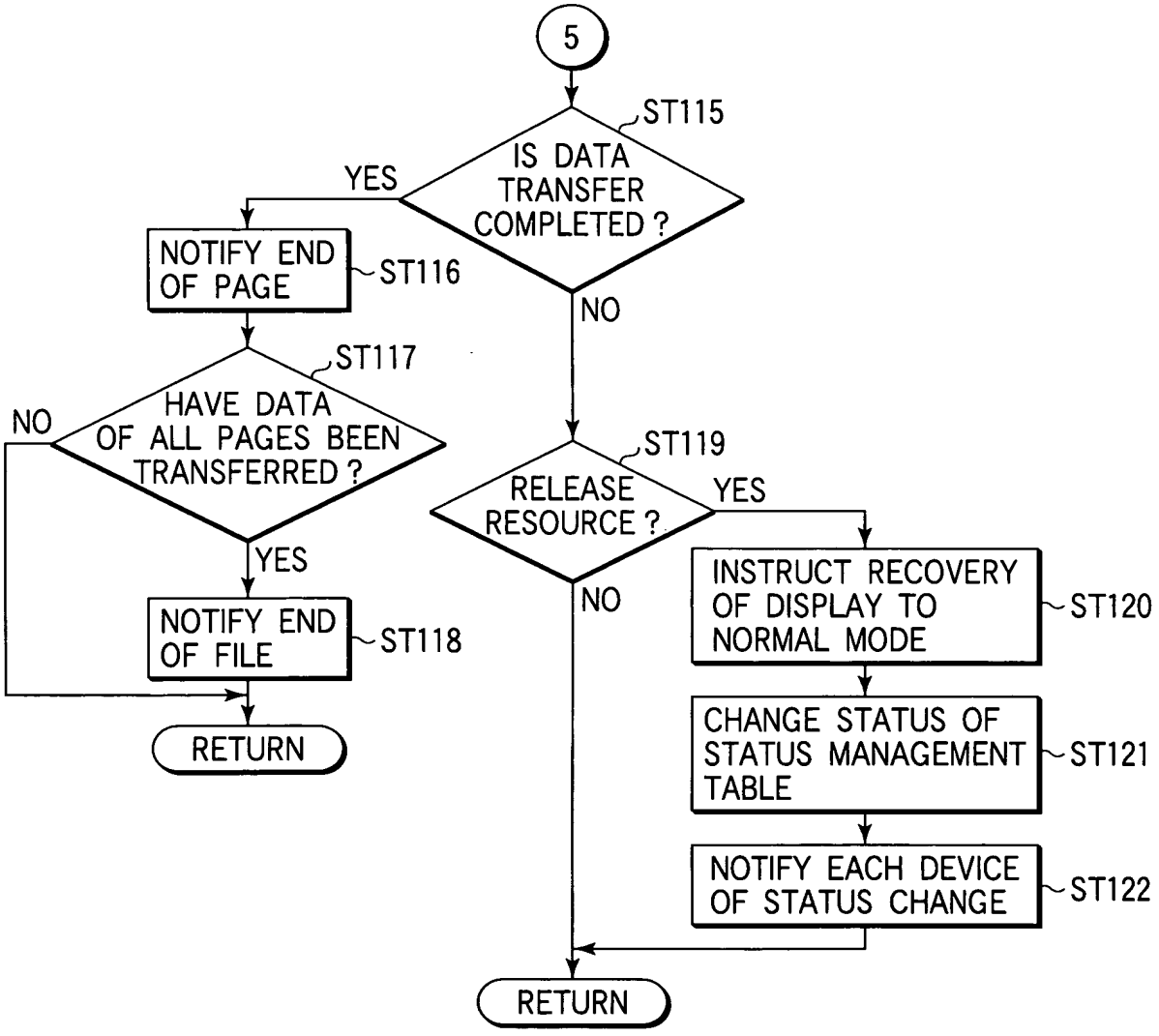
5
ST115
IS DATA TRANSFER COMPLETED ?
YES
NO
NOTIFY END OF PAGE
ST116
ST117
HAVE DATA OF ALL PAGES BEEN TRANSFERRED ?
NO
YES
NOTIFY END OF FILE
ST118
RETURN
ST119
RELEASE RESOURCE ?
YES
NO
INSTRUCT RECOVERY OF DISPLAY TO NORMAL MODE
ST120
CHANGE STATUS OF STATUS MANAGEMENT TABLE
ST121
NOTIFY EACH DEVICE OF STATUS CHANGE
ST122
RETURN

FIG. 34

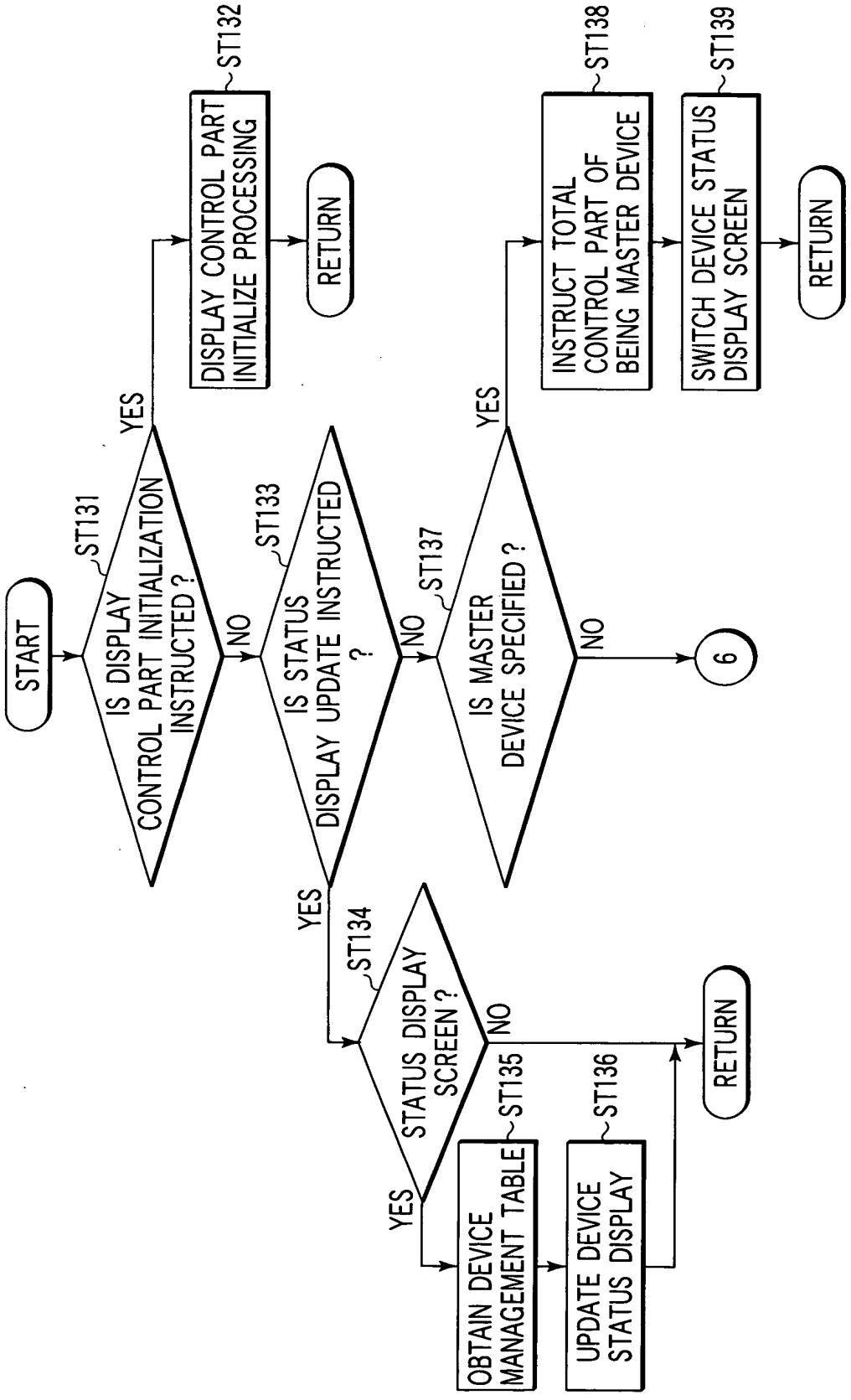
START
ST131
IS DISPLAY CONTROL PART INITIALIZATION INSTRUCTED ?
YES
DISPLAY CONTROL PART INITIALIZE PROCESSING
ST132
RETURN
NO
ST133
IS STATUS DISPLAY UPDATE INSTRUCTED ?
YES
ST134
STATUS DISPLAY SCREEN ?
YES
OBTAIN DEVICE MANAGEMENT TABLE
ST135
UPDATE DEVICE STATUS DISPLAY
ST136
RETURN
NO
NO
ST137
IS MASTER DEVICE SPECIFIED ?
YES
INSTRUCT TOTAL CONTROL PART OF BEING MASTER DEVICE
ST138
SWITCH DEVICE STATUS DISPLAY SCREEN
ST139
RETURN
NO
6

FIG. 35

Title: IMAGE FORMING SYSTEM
Inventor(s): Yoji MATSUDA
Appl. No.: 09/761,777

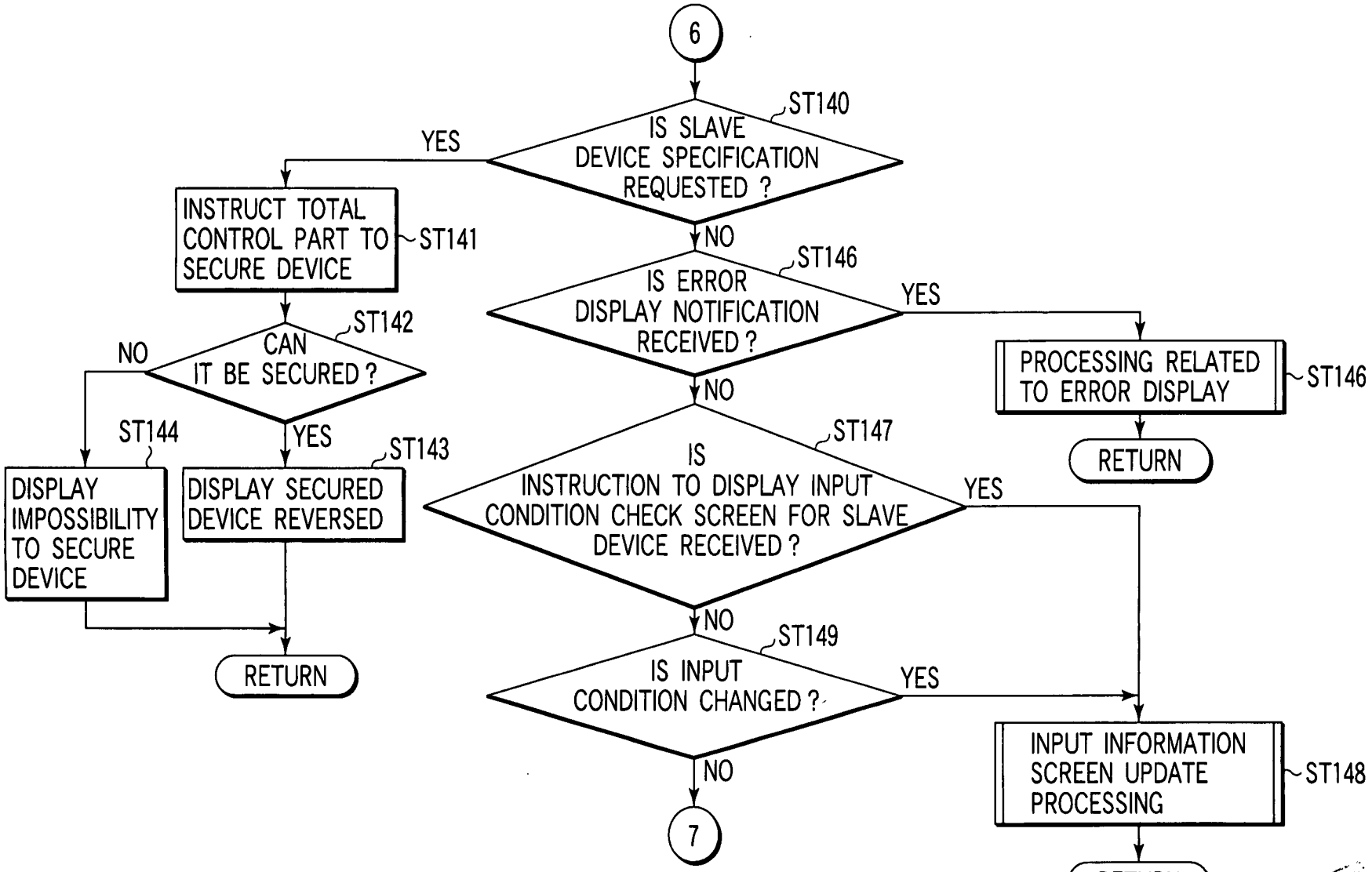

FIG. 36

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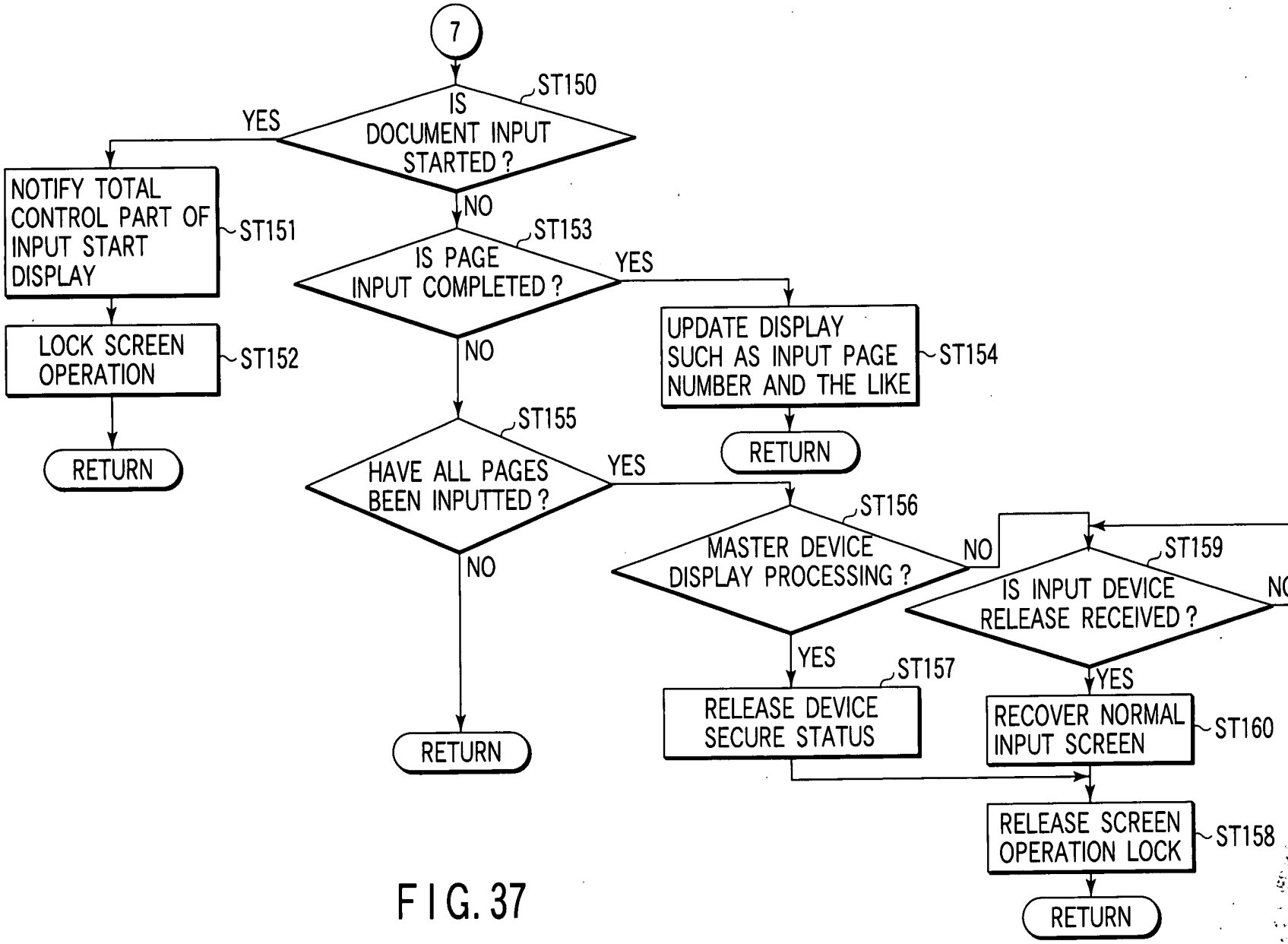

FIG. 37

Title: IMAGE FORMING SYSTEM
Inventor(s): Yoji MATSUDA
Appl. No.: 09/761,777

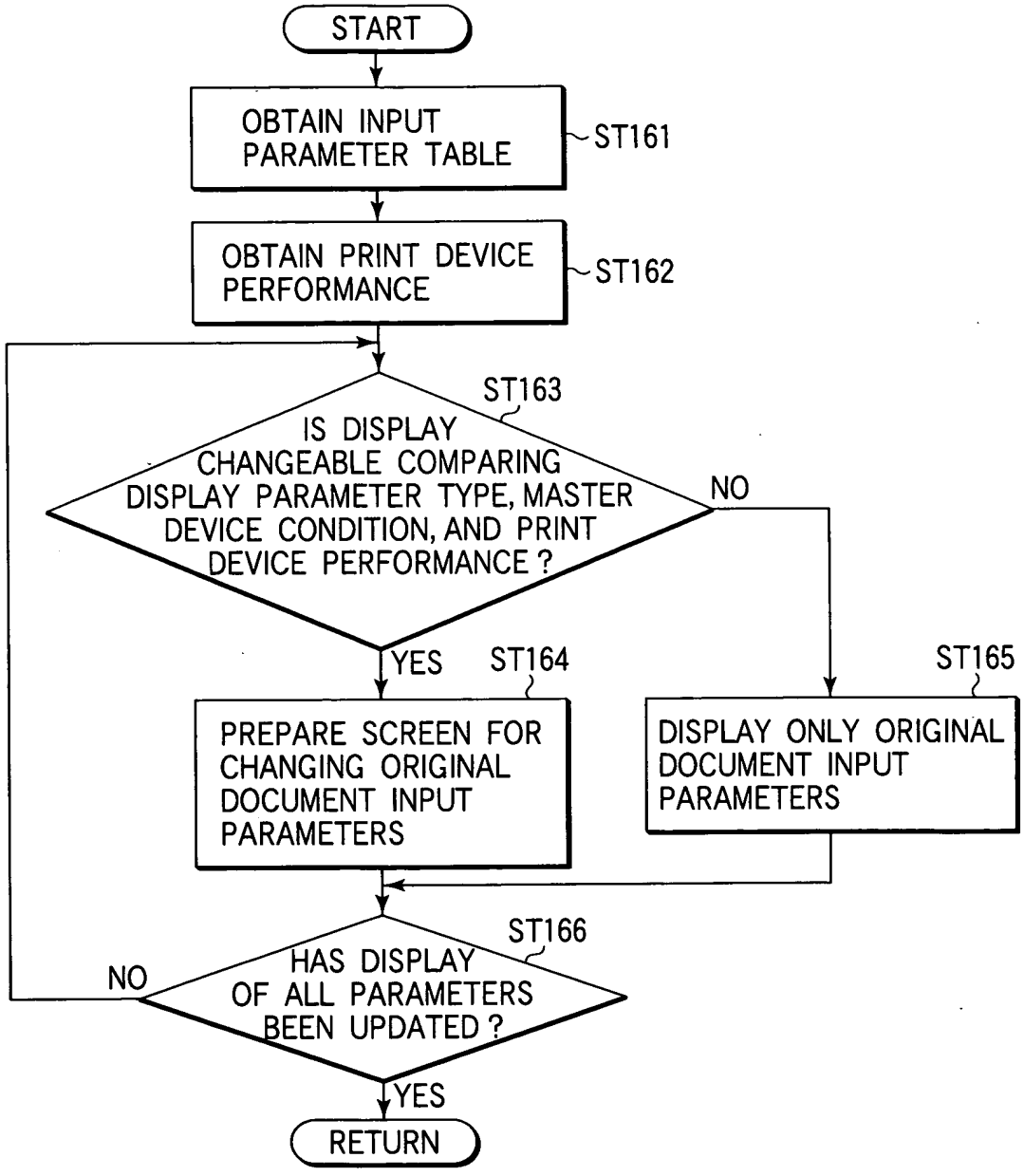
START
OBTAIN INPUT PARAMETER TABLE
ST161
OBTAIN PRINT DEVICE PERFORMANCE
ST162
ST163
IS DISPLAY CHANGEABLE COMPARING DISPLAY PARAMETER TYPE, MASTER DEVICE CONDITION, AND PRINT DEVICE PERFORMANCE ?
NO
YES
ST164
PREPARE SCREEN FOR CHANGING ORIGINAL DOCUMENT INPUT PARAMETERS
ST165
DISPLAY ONLY ORIGINAL DOCUMENT INPUT PARAMETERS
ST166
HAS DISPLAY OF ALL PARAMETERS BEEN UPDATED ?
NO
YES
RETURN

FIG. 38

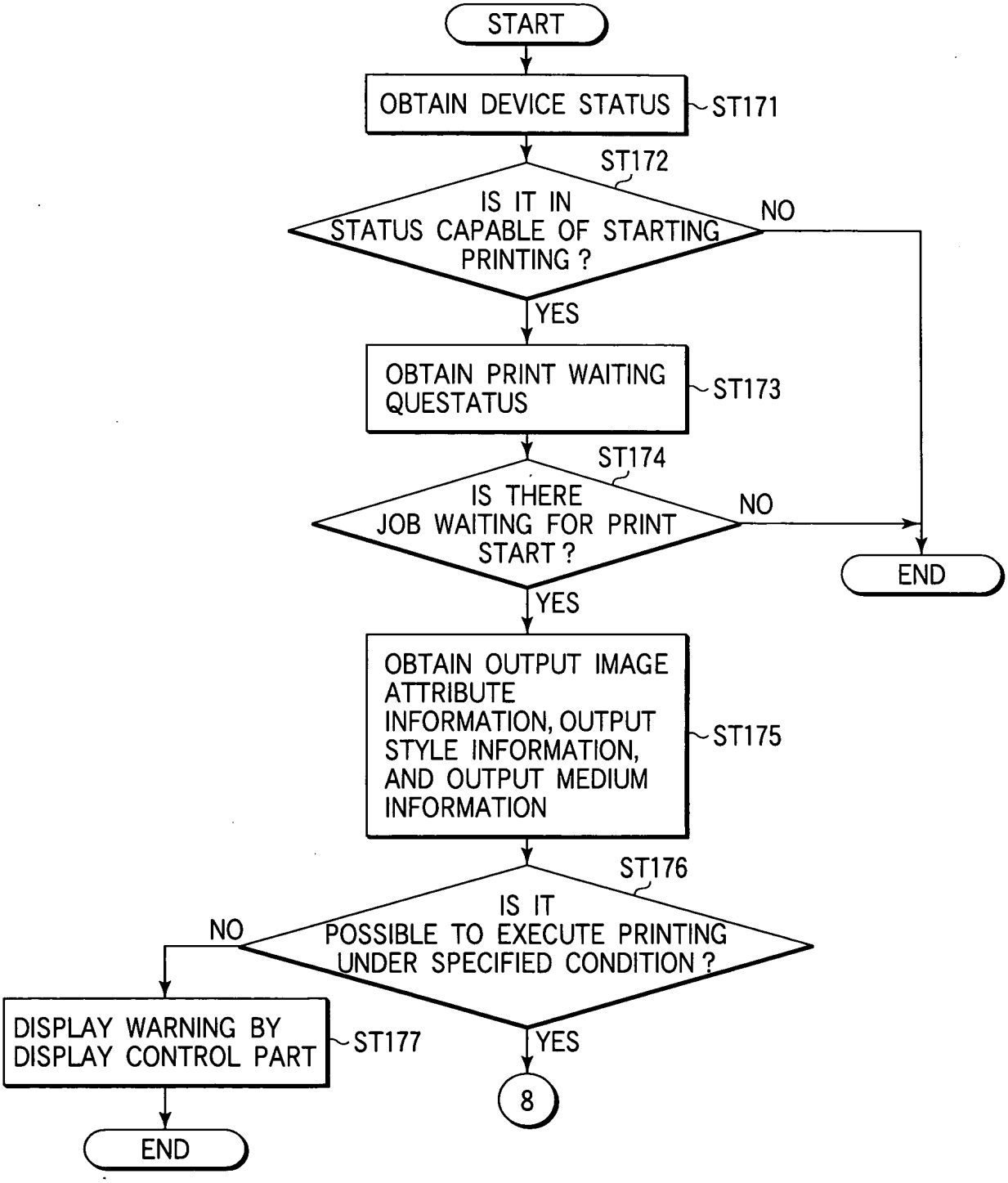
START
OBTAIN DEVICE STATUS
ST171
ST172
IS IT IN STATUS CAPABLE OF STARTING PRINTING ?
NO
YES
OBTAIN PRINT WAITING QUESTATUS
ST173
ST174
IS THERE JOB WAITING FOR PRINT START ?
NO
YES
END
OBTAIN OUTPUT IMAGE ATTRIBUTE INFORMATION, OUTPUT STYLE INFORMATION, AND OUTPUT MEDIUM INFORMATION
ST175
ST176
IS IT POSSIBLE TO EXECUTE PRINTING UNDER SPECIFIED CONDITION ?
NO
YES
DISPLAY WARNING BY DISPLAY CONTROL PART
ST177
8
END

FIG. 39

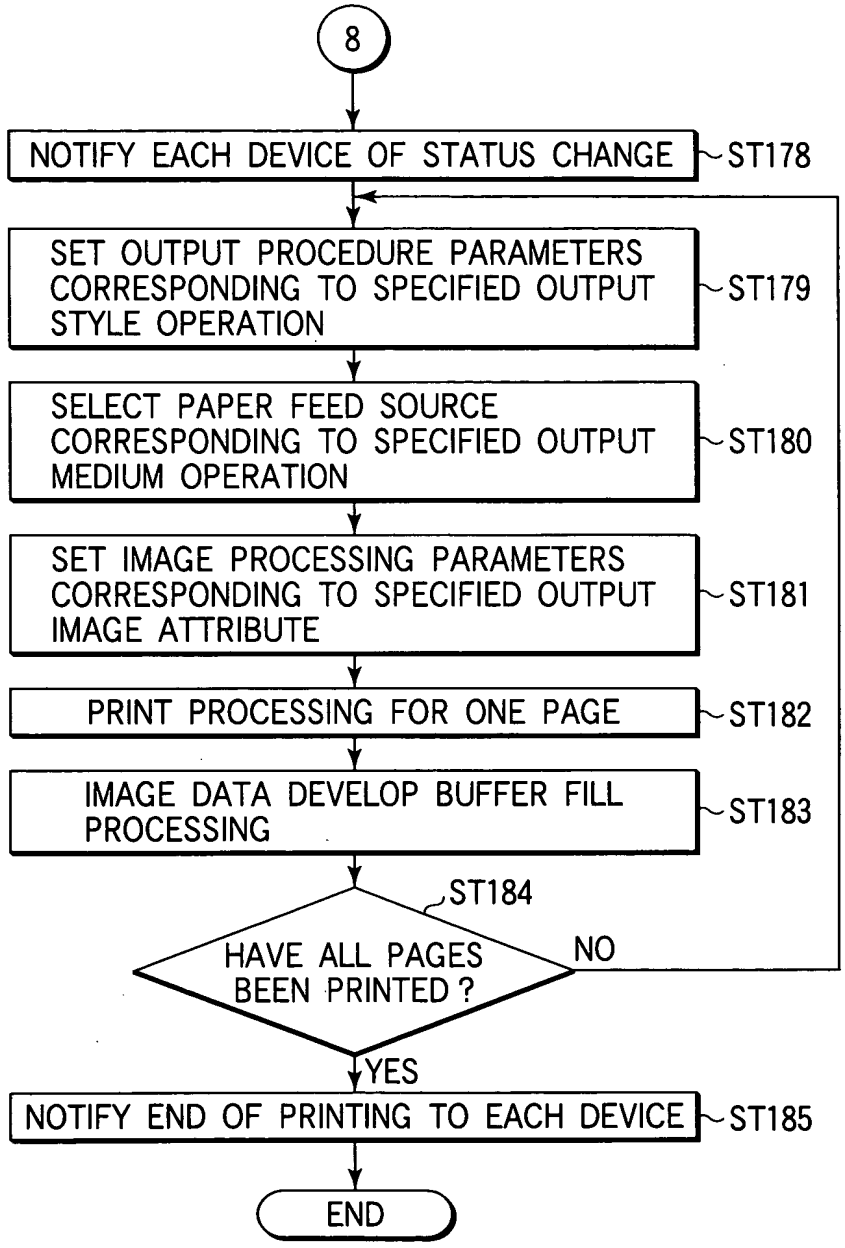
8
NOTIFY EACH DEVICE OF STATUS CHANGE
ST178
SET OUTPUT PROCEDURE PARAMETERS CORRESPONDING TO SPECIFIED OUTPUT STYLE OPERATION
ST179
SELECT PAPER FEED SOURCE CORRESPONDING TO SPECIFIED OUTPUT MEDIUM OPERATION
ST180
SET IMAGE PROCESSING PARAMETERS CORRESPONDING TO SPECIFIED OUTPUT IMAGE ATTRIBUTE
ST181
PRINT PROCESSING FOR ONE PAGE
ST182
IMAGE DATA DEVELOP BUFFER FILL PROCESSING
ST183
ST184
HAVE ALL PAGES BEEN PRINTED ?
NO
YES
NOTIFY END OF PRINTING TO EACH DEVICE
ST185
END

FIG. 40